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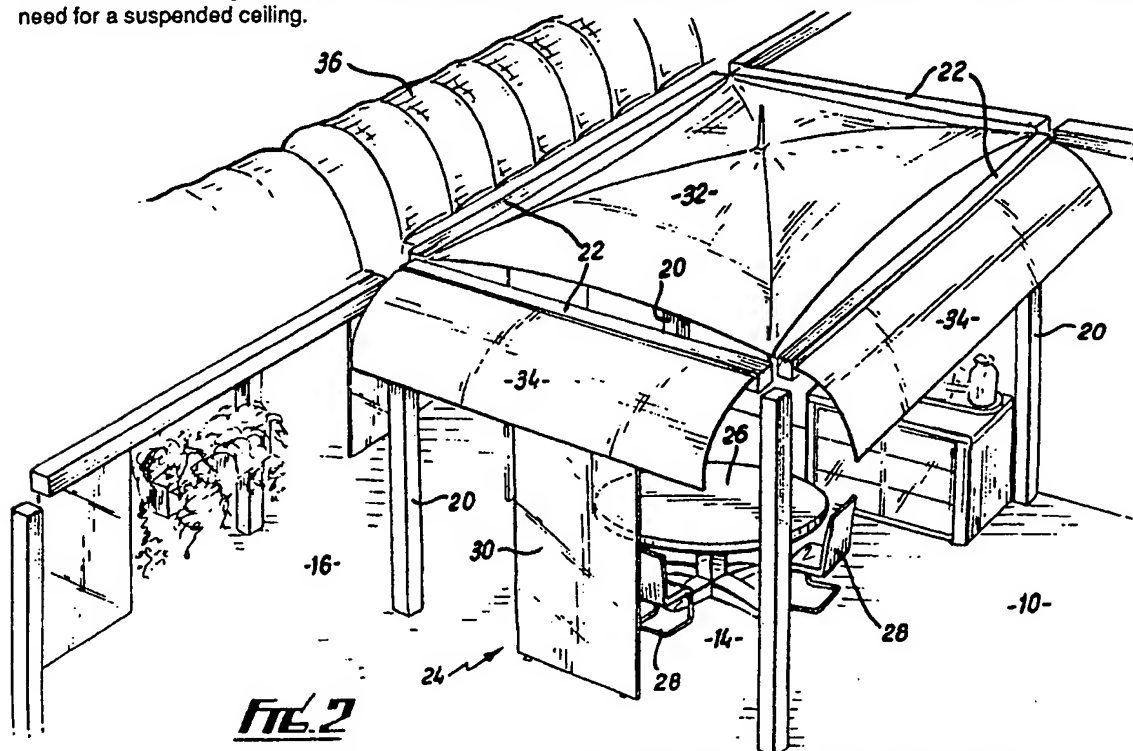
**None**

(58) Field of search

**UK CL (Edition J) E1D DF142 DLCKM  
INT CL<sup>4</sup> E04B**

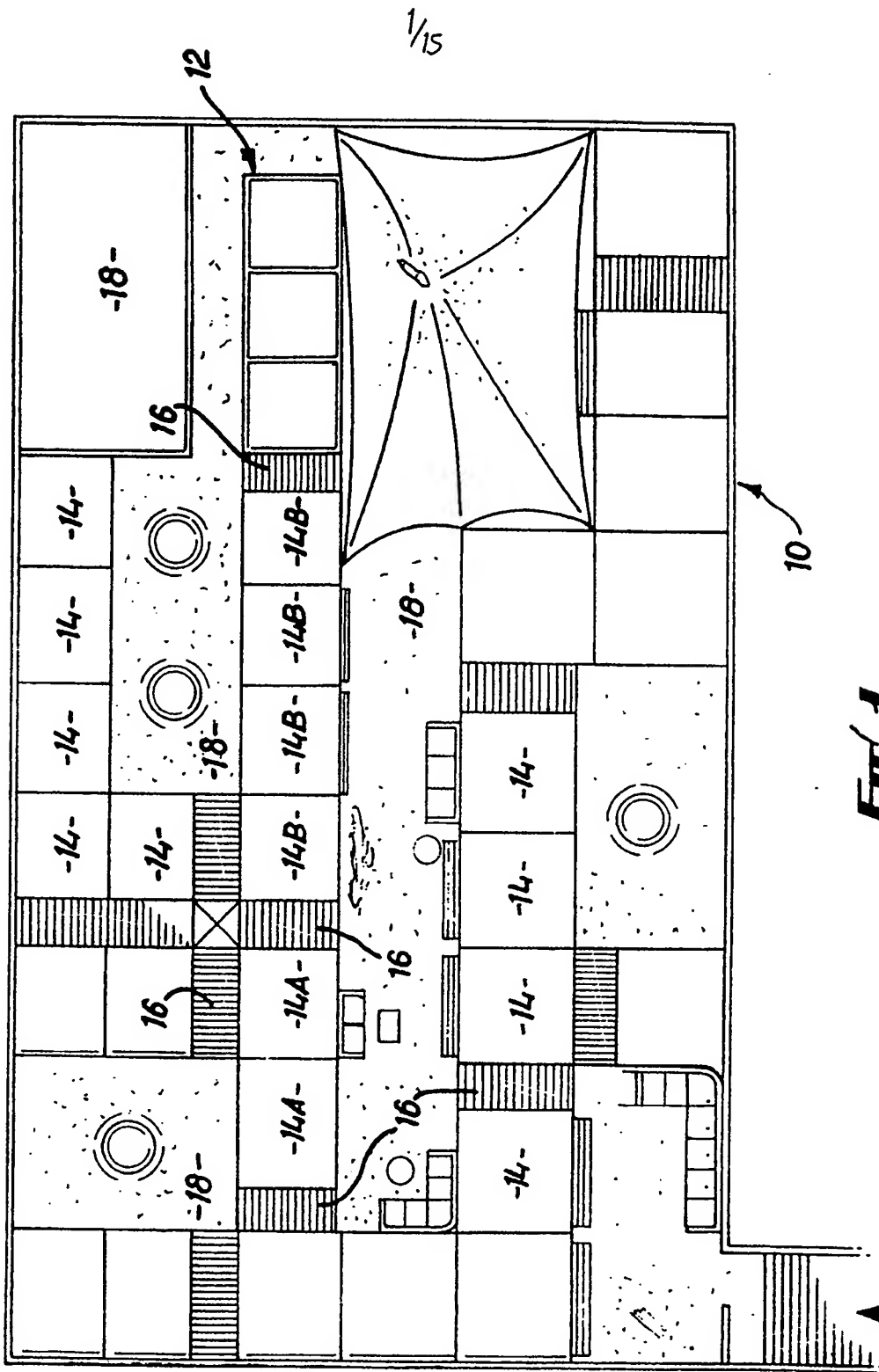
(54) **Space divider system, e.g. for offices**

(57) A space divider system is used for dividing a floor space by means of selectably placeable partition panels 30 stabilised by a modular support system. The support system substantially comprises beam members 22 and post members 20 which are preferably of mutually uniform length and cross-section and include longitudinal cavities for housing service distribution means, e.g. electrical or telephone cables. Overhead canopies 32, 36 may be fitted to beams 22 obviating the need for a suspended ceiling.

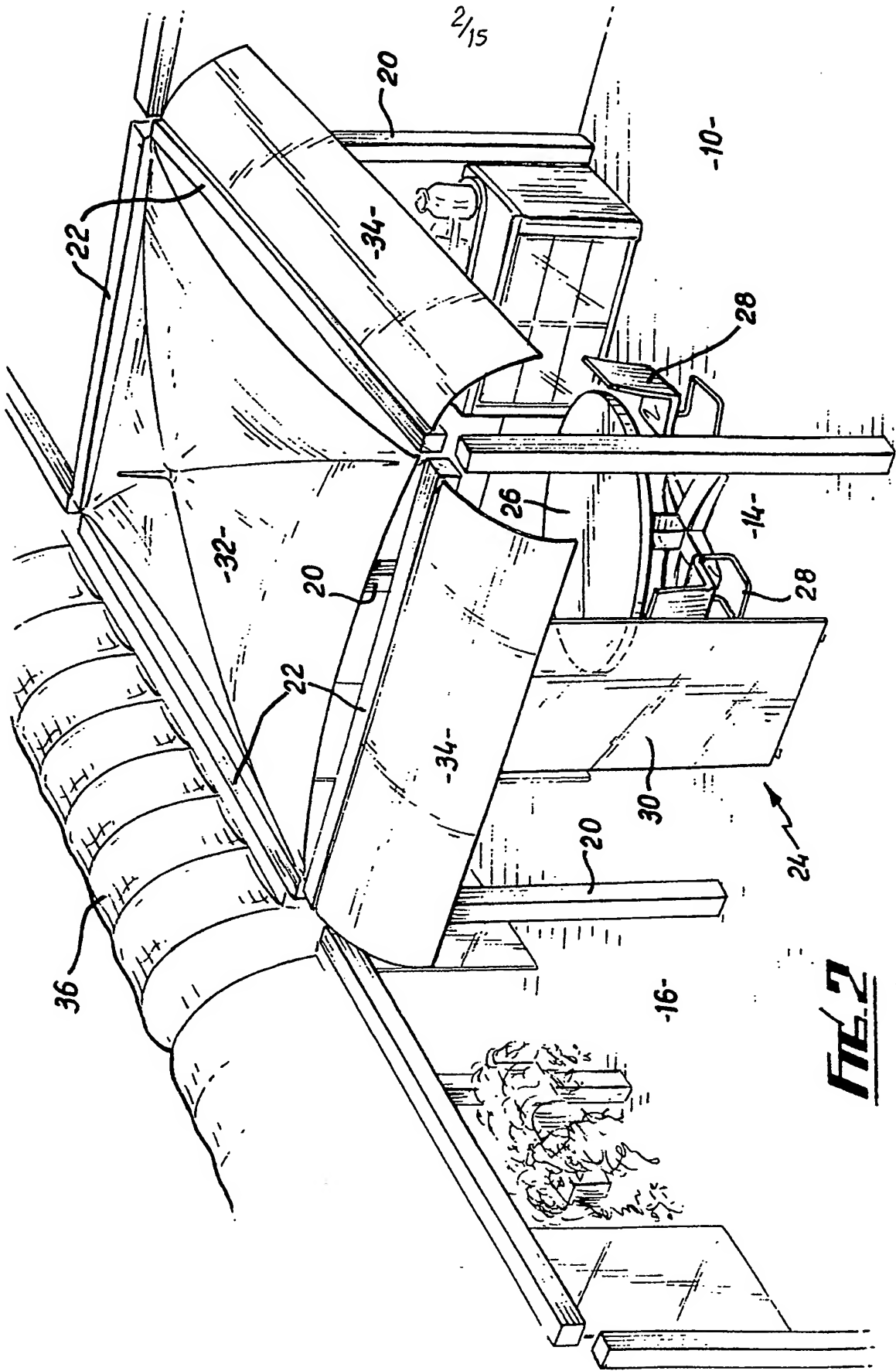


At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

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**FIG. 1**



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**FIG. 2**

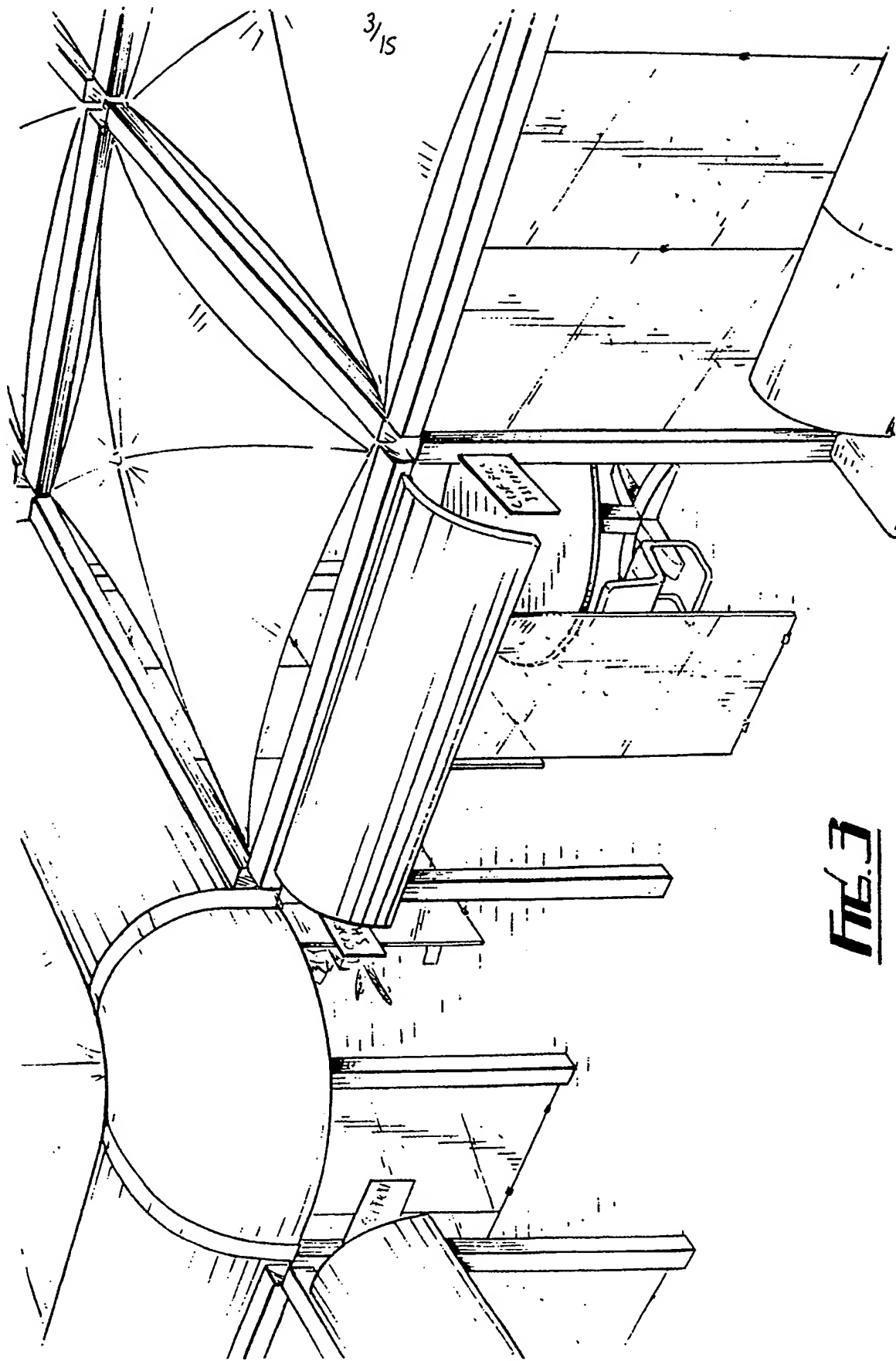
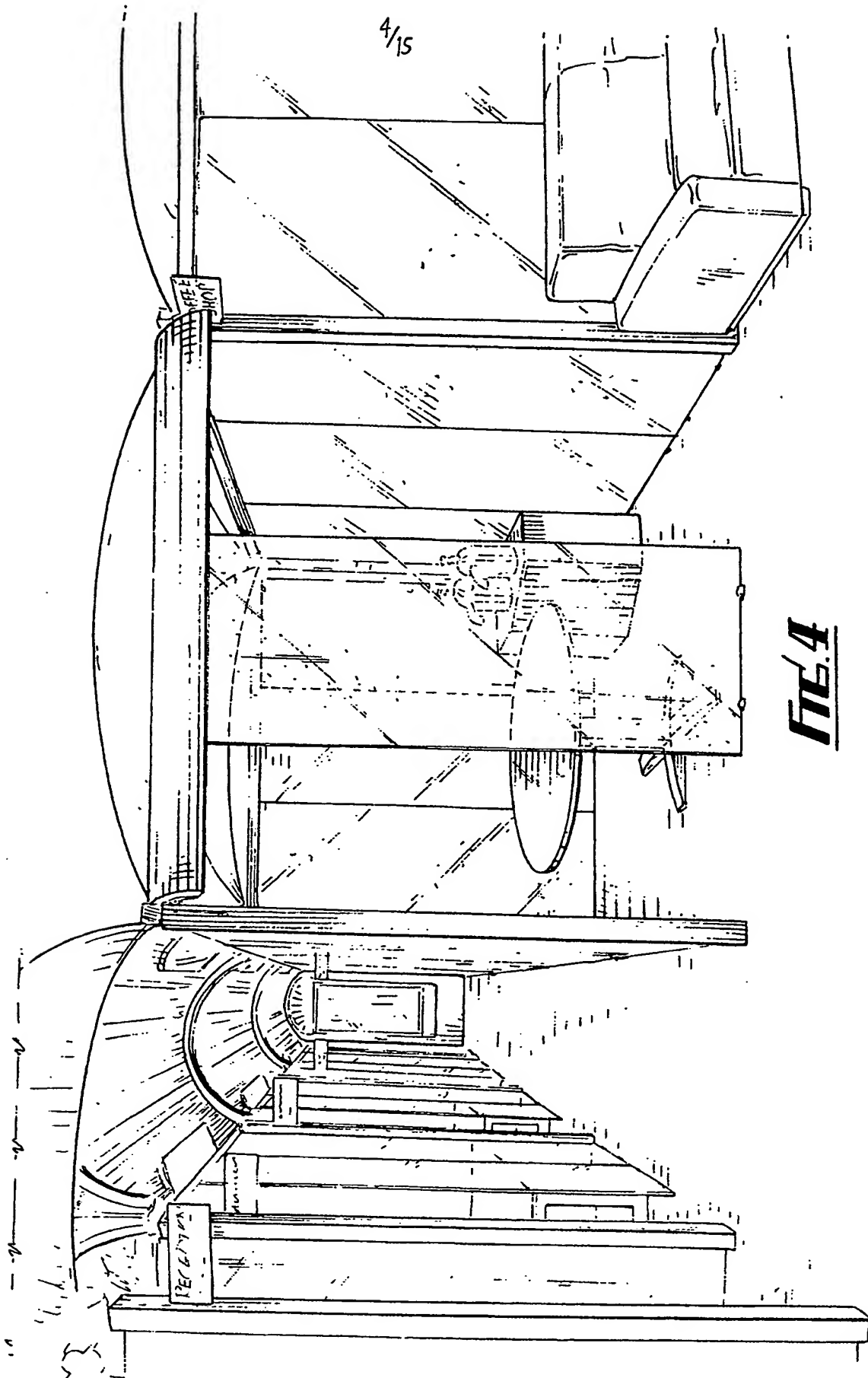
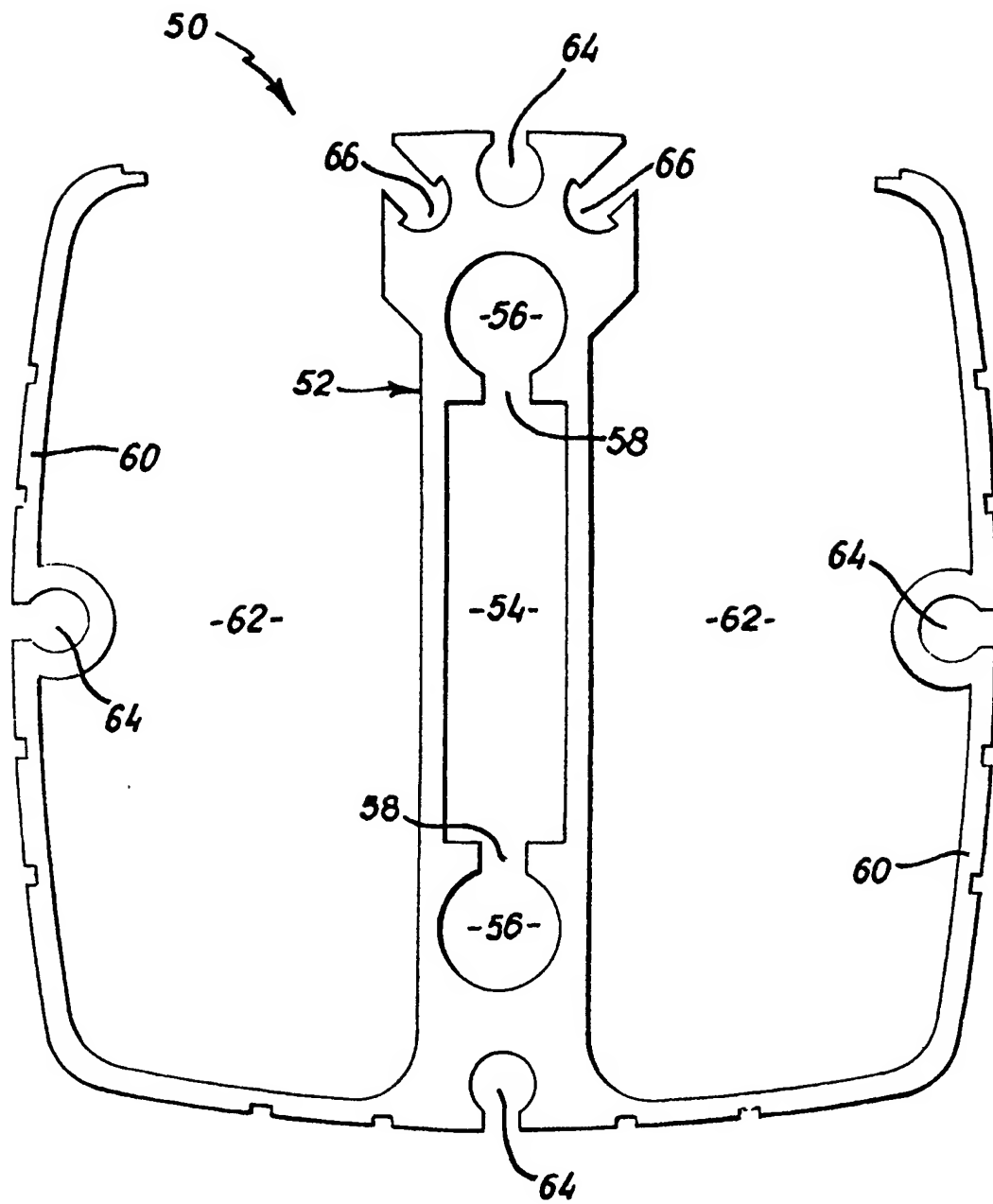


Fig 3

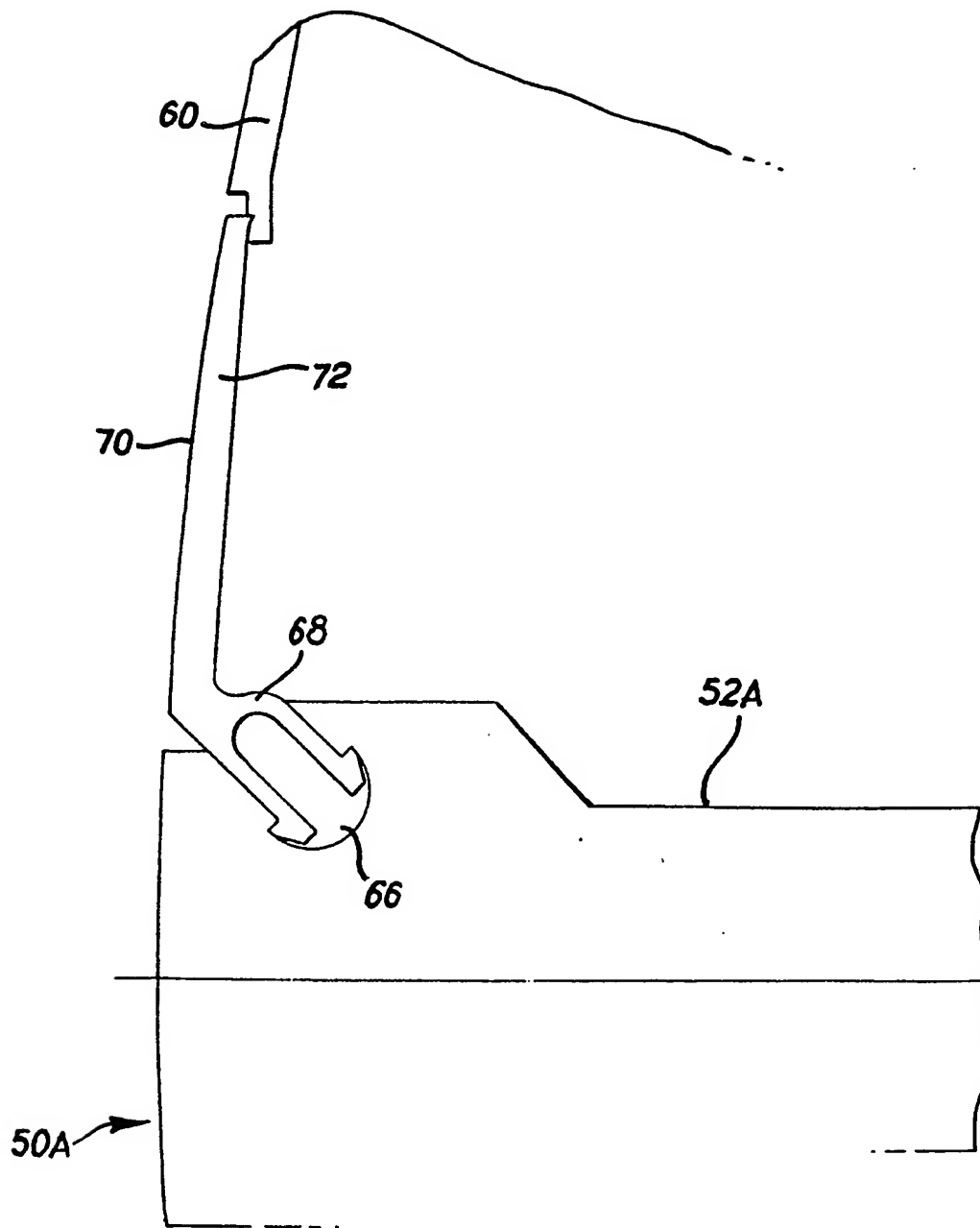


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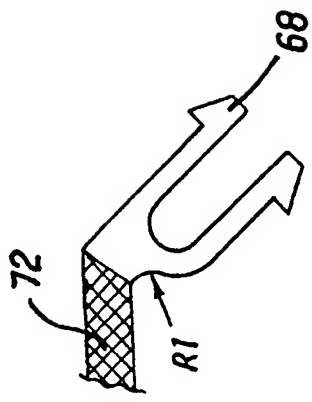


**FIG. 5**

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**FIG. 6**



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1. Mat'l. to be rigid P.V.C. black finish except where specified otherwise.
2. Mat'l. to be soft P.V.C. black finish of shore A60 where shown: ~~XXXXX~~
3. Extrusion length to be 2400.



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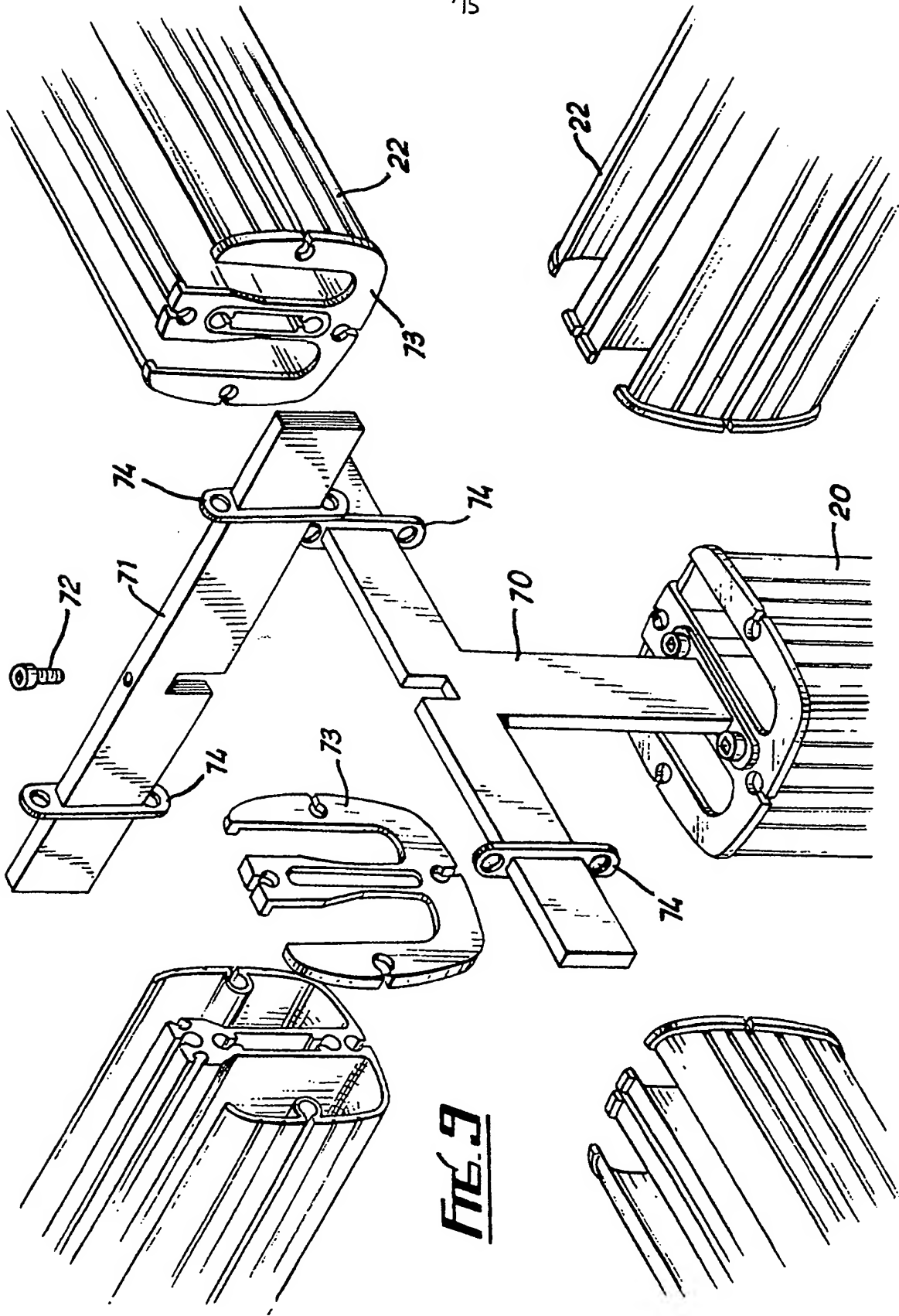
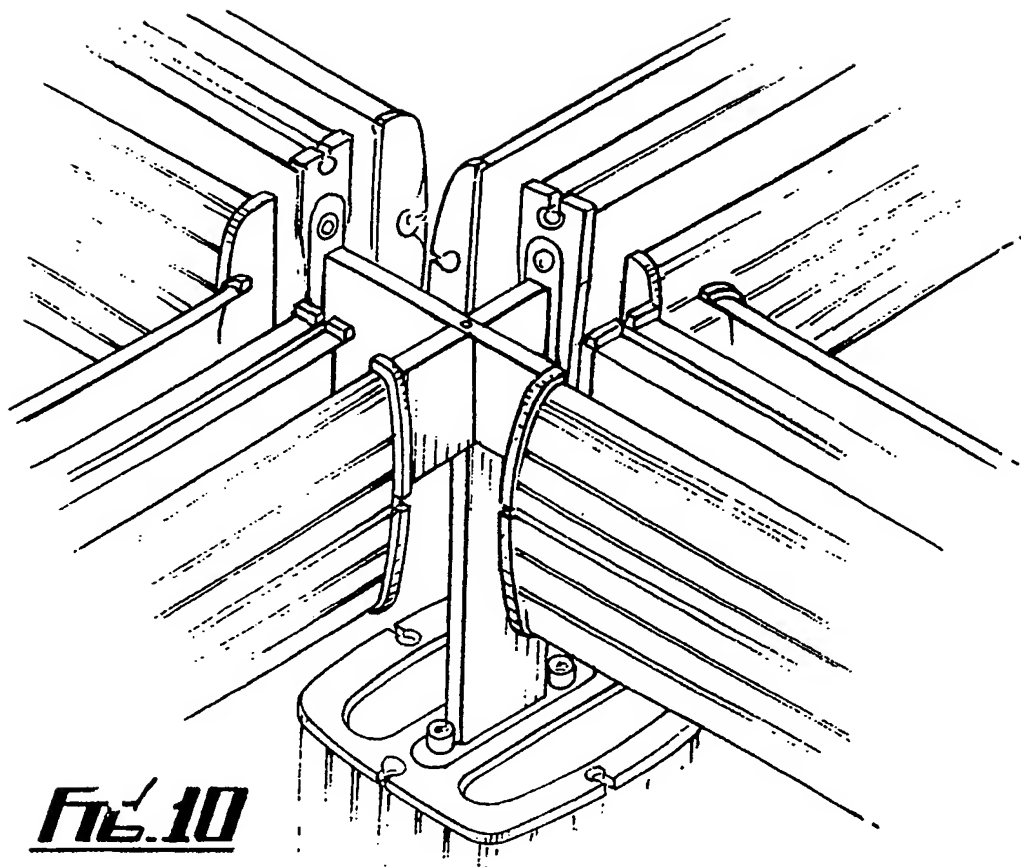
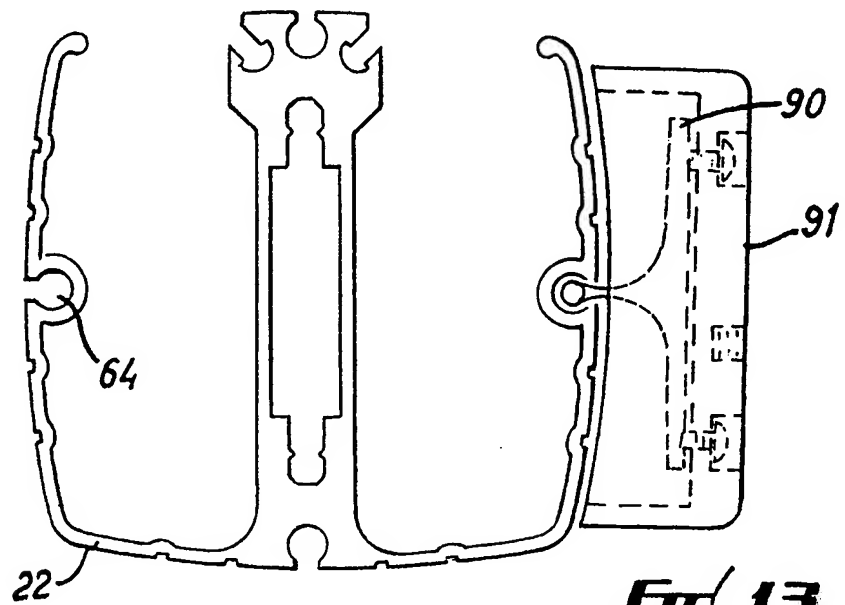


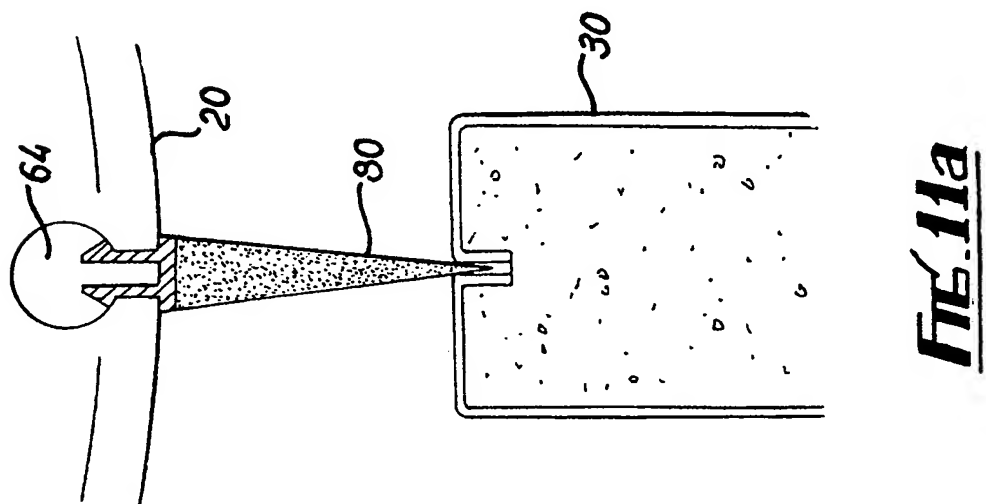
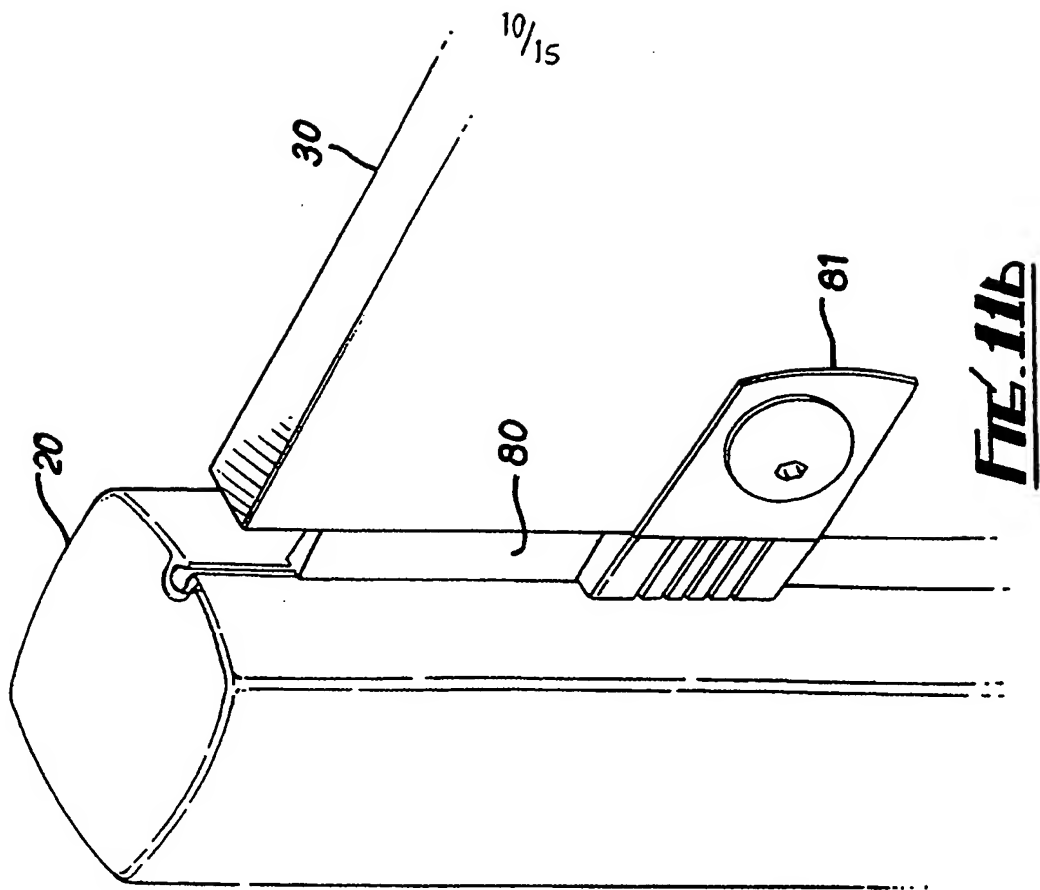
FIG. 9



**FIG. 10**



**FIG. 13**



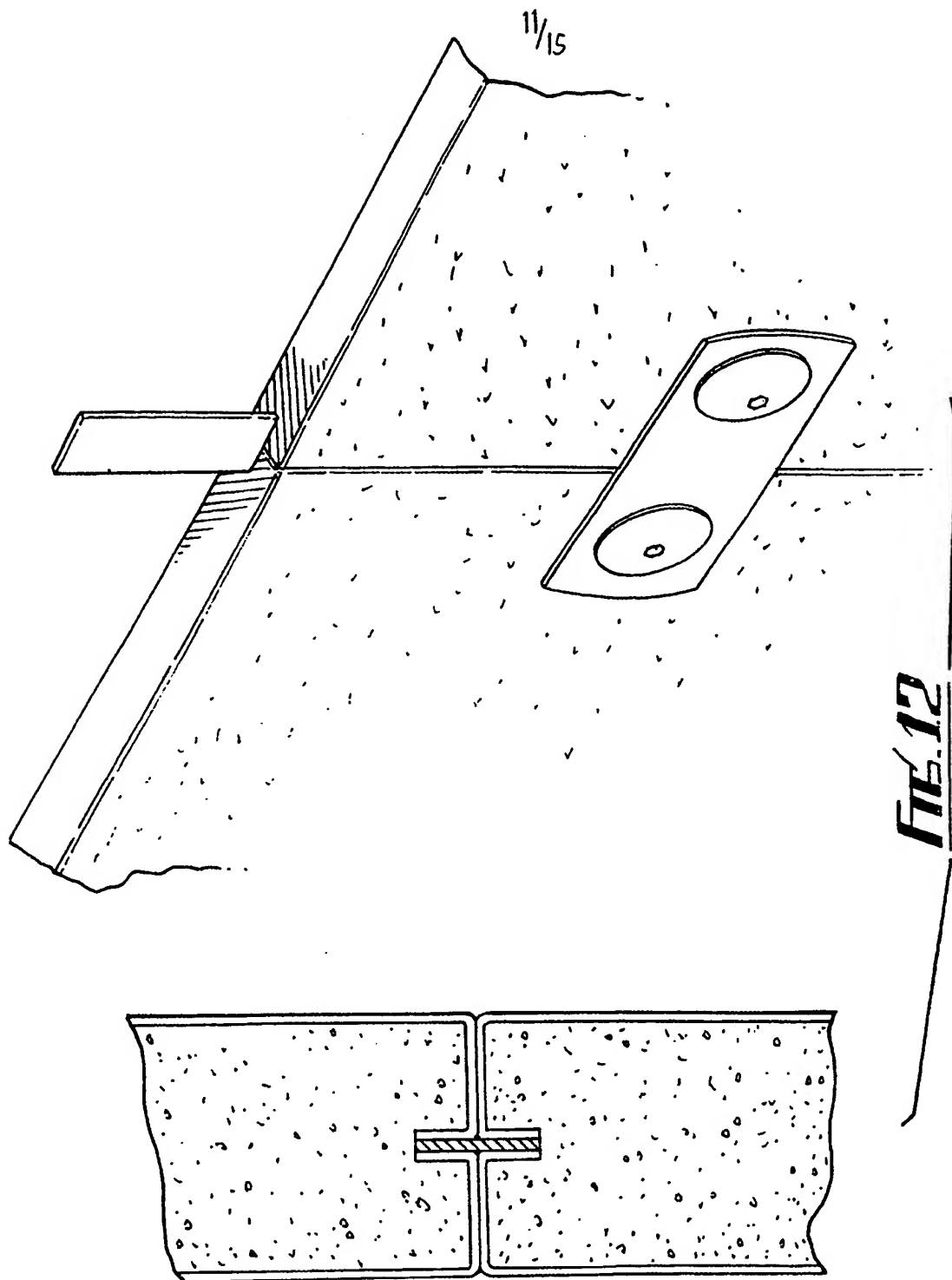


FIG. 12

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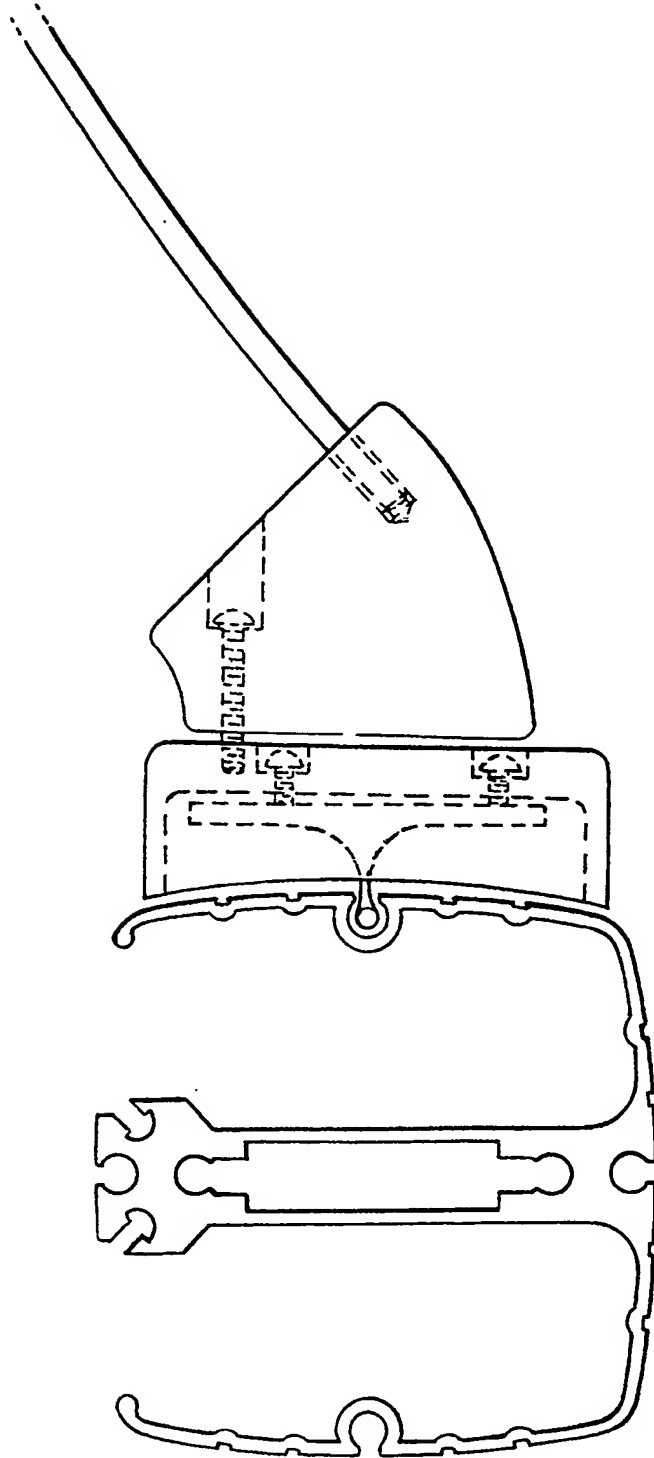
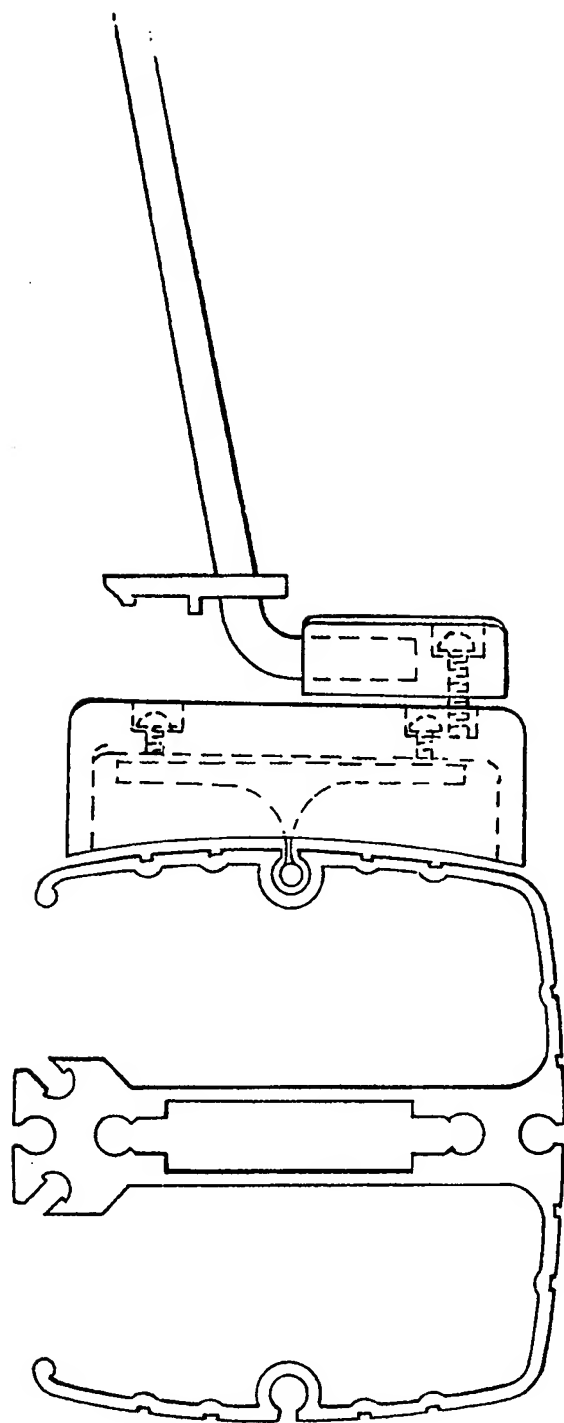


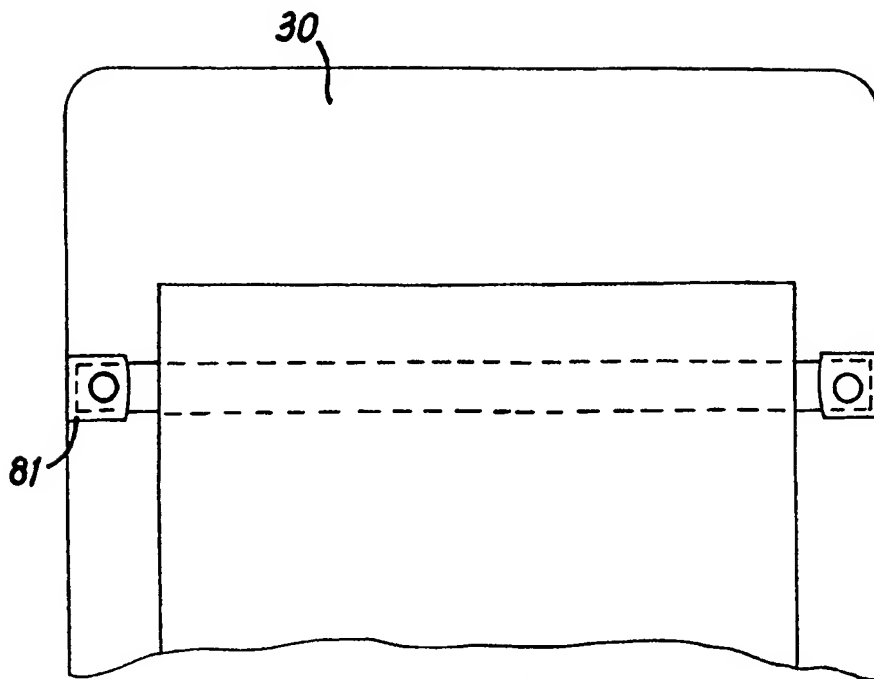
Fig. 14

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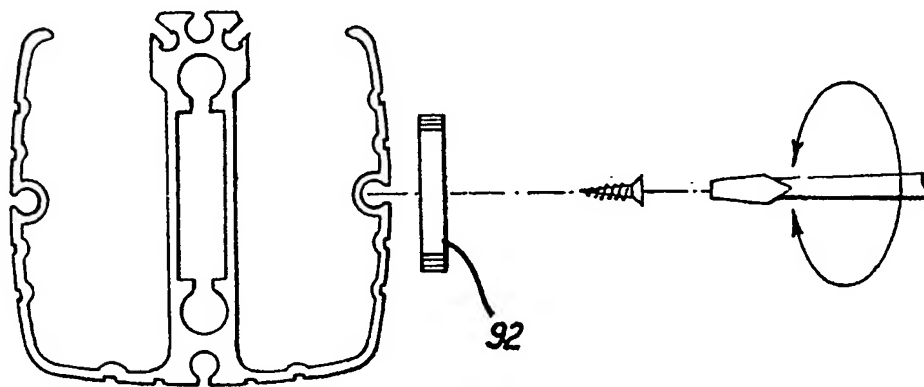


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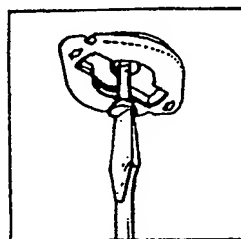
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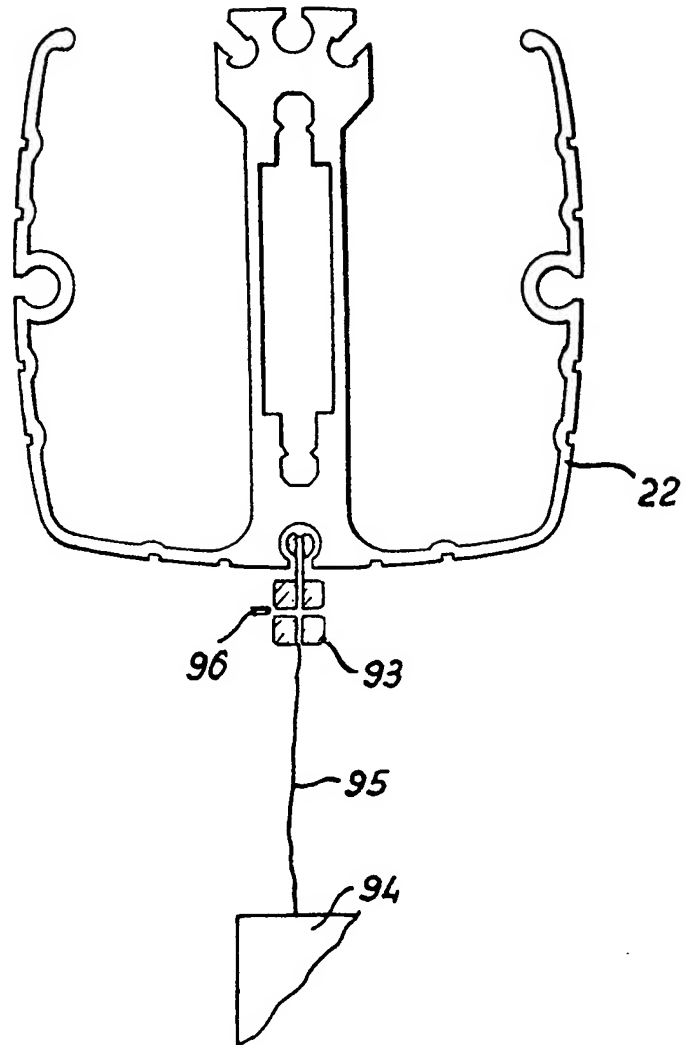
**FIG. 16**



**FIG. 17**



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**FIG. 18**



1   "Space Divider System"

2

3   This invention relates to a space divider system, and  
4   relates more particularly but not exclusively to a  
5   system for dividing a floor space by means of  
6   selectably placeable partition panels stabilised by a  
7   modular support system based on a minimal kit of parts  
8   therefor.

9

10   It is increasingly the practice for business premises  
11   to be constructed initially as an open single-level  
12   floor bounded by the external walls of the building,  
13   the openness of the floor being interrupted at most by  
14   a service core. Such open-floor buildings are then  
15   sub-divided by tenants erecting internal walls, or by  
16   placing floor-standing screens (so-called "open plan"  
17   offices), or by a mixture of such techniques.

18

19   Sub-division of office floor space by internal walls  
20   usually requires architectural services in planning and  
21   the use of skilled craftsmen for the time-consuming  
22   erection of the internal walls, together with the  
23   provision of distributed services (power, lighting, and  
24   telecommunications); such sub-division of office floor  
25   space is therefore relatively expensive.

1 Sub-division of office floor space on the "open plan"  
2 principle is somewhat cheaper in material cost for  
3 screens as compared to fixed walls, but still requires  
4 detailed planning. Typical open plan floor-standing  
5 screens do not readily provide for the necessary  
6 distribution of services to all areas of the office.  
7 Distribution of services through a hollow floor system  
8 (sometimes termed "computer floors") is expensive in  
9 first cost, and will necessarily make the building more  
10 expensive.

11  
12 It is therefore an object of the invention to provide a  
13 space divider system which enables an area of solid  
14 floor to be selectively divided on a modular basis by  
15 means of selectively placeable floor-standing partition  
16 panels stabilised by a modular support system based on  
17 a minimal kit of parts therefor and providing a  
18 relatively simple means of service distribution  
19 throughout the floor area, the space divider system  
20 giving maximum flexibility in selection of partition  
21 panel placement in the first instance and for any  
22 subsequent re-arrangement of panels, without requiring  
23 the modular support system to be especially arranged or  
24 re-arranged to suit the first placement or  
25 re-arrangement of partition panels.

26  
27 According to a first aspect of the present invention  
28 there is provided a space divider system for modularly  
29 dividing an area of floor by means of selectively  
30 placeable floor-standing partition panels stabilised by  
31 a modular support system, said floor area being  
32 reticulated by a notional grid thereon, said support  
33 system comprising a plurality of substantially vertical  
34 posts individually standing on lineally adjacent nodes  
35 of said notional grid, each said post having a height

1 greater than the height of a person standing on said  
2 floor, said support system further comprising a  
3 plurality of beams, each said beam being supported at  
4 each end thereof on the respective upper ends of a  
5 lineally adjacent pair of said posts, each said beam  
6 having a length substantially equal to the respective  
7 internodal dimension of the notional grid which that  
8 beam overlies, whereby the combination of said posts  
9 standing on the corners of a given area unit of said  
10 notional grid together with said beams supported  
11 thereby constitute a basic module of said space divider  
12 system, said posts and said beams each comprising  
13 service distributing means for distributing services  
14 throughout said floor area at least as far as the nodes  
15 of said notional grid, said posts and said beams  
16 further comprising partition panel stabilising means  
17 for stabilising a plurality of substantially planar  
18 floor-standing partition panels standing in  
19 substantially vertical positions on predetermined parts  
20 of said notional grid.

21  
22 According to a second aspect of the present invention  
23 there is provided a space divider system for modularly  
24 dividing an area of solid floor by means of selectively  
25 placeable floor-standing partition panels stabilised by  
26 a modular support system, said floor area being  
27 reticulated by a notional rectangular grid thereon,  
28 said notional grid having substantially uniform  
29 rectilinear internodal dimensions in respective ones of  
30 two mutually substantially normal horizontal  
31 directions, said support system comprising a plurality  
32 of substantially vertical posts individually standing  
33 on rectilineally adjacent nodes of said notional grid,  
34 each said post having a substantially uniform height  
35 greater than the height of a person standing on said

1 floor, said support system further comprising a  
2 plurality of substantially horizontal beams, each said  
3 beam being supported at each end thereof on the  
4 respective upper ends of a rectilineally adjacent pair  
5 of said posts, each said beam having a length  
6 substantially equal to the respective internodal  
7 dimension of the notional grid which that beam  
8 overlies, whereby the combination of four said posts  
9 standing on the four corners of a given rectangle of  
10 said notional grid together with four said beams  
11 supported thereby constitute a basic module of said  
12 space divider system, said posts and said beams each  
13 comprising service distributing means for distributing  
14 services throughout said floor area at least as far as  
15 the nodes of said notional grid, said posts and said  
16 beams further comprising partition panel stabilising  
17 means for stabilising a plurality of substantially  
18 planar floor-standing partition panels standing in  
19 substantially vertical positions on predetermined parts  
20 of said notional grid.

21  
22 Said rectilinear internodal dimensions are preferably  
23 substantially equal in each of said two mutually  
24 substantially normal horizontal directions whereby said  
25 notional grid is a substantially square grid.

26  
27 Said uniform height of said posts is preferably  
28 substantially equal to said rectilinear internodal  
29 dimension of said notional square grid whereby said  
30 basic module is essentially cubic.

31  
32 Said notional grid may have a said post standing on  
33 each node thereof whereby the totality of said floor  
34 area is divided into basic modules. Alternatively,  
35 posts may be omitted from one or more selected nodes of

1 said notional grid such that said floor area is divided  
2 in such places into modular multiples (for example, 2  
3 rectangles (or squares) by 1 rectangle (or square), 3  
4 rectangles (or squares) by 1 rectangle (or square), 2  
5 rectangles (or squares) by 2 rectangles (or squares),  
6 etc), with the beam or beams otherwise overlying such  
7 places preferably being omitted to allow for the  
8 absence of the supporting post or posts at said one or  
9 more selected nodes.

10

11 The totality of said floor may be reticulated by a  
12 single said notional rectangular or square grid thereon  
13 whereby the total area of said floor may be divided  
14 into said basic modules. Alternatively, the totality  
15 of said floor may be reticulated by a plurality of such  
16 notional rectangular or square grids thereon with each  
17 said grid having substantially identical rectilinear  
18 internodal dimensions in respective ones of said two  
19 mutually substantially normal horizontal directions,  
20 and with adjacent grids being separated by strips of a  
21 width less than the respective said internodal  
22 dimension (for example, of a width about half of the  
23 respective said internodal dimension) whereby said  
24 basic modules can form occupiable room areas in the  
25 divided floor while said lesser-width strip or strips  
26 can form a traversable passageway or passageways  
27 between said occupiable room areas in the divided  
28 floor. Said lesser-width strips may optionally be  
29 traversed by beams of appropriately lesser length than  
30 the beams defining said basic modules, or beams may be  
31 omitted over said lesser-width strip(s).

32

33 Said service distributing means comprised in said posts  
34 and in said beams is preferably constituted by integral  
35 trunking. Said posts and said beams are preferably

1 each hollow with one or more end-to-end longitudinal  
2 cavities therein serving as said integral trunking.  
3 The or each said cavity in a post or beam is preferably  
4 externally accessible at any point therealong through  
5 one or more flexible lips normally closing the  
6 respective longitudinal cavity to serve as cover and  
7 retainer but deformable to allow the entry or exit at a  
8 selected point of one or more cables or other service  
9 carriers. Thereby integral trunking in the beams  
10 allows cables or other service carriers to be  
11 distributed over the floor area above head-height in a  
12 controlled manner in predetermined cable runs while  
13 keeping them largely out of sight, the cables leaving  
14 the beam trunking over a selected point to drop down  
15 directly to a desired location, or alternatively, the  
16 cables being carried vertically down inside the  
17 trunking of the post nearest the selected point to  
18 leave the post trunking at an appropriate height, for  
19 example at desk height or at floor level. Throughout  
20 such service distributing means, the trunking closures  
21 serve as protective covers and positive retainers for  
22 the cables or other service carriers or conduits  
23 carried within the trunking. The distributed services  
24 may include telecommunications and electrical power.

25  
26 An outlet unit may be provided for attachment to a  
27 selected post of the space divider system to provide a  
28 selectively placeable local termination for cables or  
29 other service carriers distributed over the modularly  
30 divided floor area by the service distributing means  
31 comprised in the posts and beams, and a local outlet  
32 for services carried thereby. The outlet unit is  
33 preferably vertically movable on the selected post  
34 without detachment of the cable or cables terminated  
35 thereby, said cable(s) having an appropriate

1 flexibility and length to permit such vertical  
2 movement. The outlet unit may comprise one or more  
3 sockets for telecommunications and/or electrical power,  
4 and the outlet unit may additionally comprise one or  
5 more appropriate devices such as isolating switches,  
6 fuses, circuit breakers, or other protective devices  
7 whose provision is desirable or mandatory.

8  
9 Lighting units and control switches therefor may be  
10 mounted on or suspended from said beams and/or on said  
11 posts, with the requisite cabling being carried in said  
12 integral trunking. Thus the space divider system of  
13 the invention provides flexible and economic  
14 distribution of this essential office service, and  
15 moreover in a manner allowing simple modification and  
16 re-arrangement of a lighting layout after its first  
17 installation, so obviating the need usual in prior-art  
18 systems for rigid pre-planning and contingency  
19 provision.

20  
21 Said posts and said beams preferably have mutually  
22 identical cross-sections, and are conveniently formed  
23 as cross-sectionally uniform elongate extrusions of an  
24 appropriate polymeric material. When provided, the or  
25 each said flexible lip may be formed integrally with  
26 the extrusion forming the posts and beams (for example,  
27 as a co-extrusion), or the flexible lips may be formed  
28 as a separate extrusion, cut to requisite length, and  
29 secured to the post/beam extrusion, for example by  
30 means of integral fastener means formed thereon in the  
31 extrusion process. When extruded with an integral  
32 fastener means, the flexible lip is preferably formed  
33 as a co-extrusion wherein the lip portion is made  
34 relatively soft and flexible (for example by the  
35 localised incorporation of a relatively higher

1 proportion of plasticiser), and the fastener means  
2 integral therewith is made relatively hard and  
3 inflexible (for example by the localised incorporation  
4 of a relatively low proportion of plasticiser,  
5 localised elimination of plasticiser, or the localised  
6 application of irradiation curing/cross-linking).

7  
8 Thus the posts and beams can conveniently be provided  
9 in respective uniform lengths of polymeric extrusion,  
10 or in the preferred case of mutually equal length posts  
11 and beams, as a uniform length of extrusion, thus  
12 simplifying the provision of parts for the support  
13 system by reducing the number of different parts  
14 therefor.

15  
16 The preferred mutually identical cross-sections of the  
17 posts and beams preferably incorporates a resilient  
18 central slot forming a socket for a plug-type coupling  
19 means for mutually attaching post tops and adjacent  
20 beam ends. The plug-type coupling means is preferably  
21 provided in a number of forms each appropriate to the  
22 number of beam ends (from one to four) to be attached  
23 to and supported by a given single post top. Thus the  
24 plug-type coupling means (with respect to its attitude  
25 when installed) preferably comprises a single  
26 vertically depending plug member at the upper end of  
27 which there are from one to four horizontally extending  
28 plug members mutually aligned at  $90^\circ$  or  $180^\circ$  as  
29 appropriate to the local number and arrangement of  
30 beams to be supported by the post into the upper end of  
31 which said vertically depending plug member is plugged  
32 for attachment to the respective post. Said plug  
33 members may have a substantially rectangular  
34 cross-section dimensioned to fit an appropriately  
35 rectangular cross-section of said central slot



1 incorporated in the cross-section of the posts and  
2 beams, and to be either an interference fit therein or  
3 a marginal clearance fit therein. Said plug members  
4 are preferably each provided with a hilt or flange to  
5 limit and define the insertion of the respective plug  
6 member into the respective post/beam socket. Each said  
7 hilt or flange is preferably provided with one or more  
8 screw-passing holes through which an appropriate number  
9 of screw-threaded fasteners may extend to be  
10 screw-threadedly secured in the respective post or  
11 beam, conveniently into a respective internally  
12 circular channel formed in the extrusion cross-section  
13 of the posts and beams. Said extrusion cross-section  
14 may have two said internally circular channels each  
15 linked by a respective slit to the central  
16 plug-member-receiving slot to provide or enhance the  
17 resilience thereof.

18  
19 Said partition panel stabilising means comprised in  
20 said space divider system preferably comprises  
21 partition panel clamping means for peripherally  
22 clamping one or more floor-standing partition panels  
23 placed on a predetermined part of said notional grid to  
24 stand substantially co-planar with the combination of a  
25 given beam and the adjacent pair of posts respectively  
26 supporting either end of said beam. Said partition  
27 panel clamping means preferably comprises a plurality  
28 of brackets each insertable into and preferably also  
29 slidable along at least one re-entrant slot or channel  
30 formed in the exterior of each post and beam, each said  
31 bracket being constructed or adapted to be secured to a  
32 respective portion of the periphery of the partition  
33 panel, preferably by means of a fastener passing  
34 through a hole in the panel periphery. Each said  
35 bracket may comprise two substantially identical

1 half-brackets each of stamped sheet metal with one edge  
2 thereof flanged or otherwise formed for insertion into  
3 and (in operative combination with the other  
4 half-bracket) anchoring in the re-entrant slot or  
5 channel in the exterior of each post and beam, another  
6 edge of each half-bracket being cranked or otherwise  
7 formed for engaging a respective side of the panel  
8 periphery such that the operative combination of the  
9 two half-brackets lie on each side of the partition  
10 panel and may be secured thereto by a fastener passing  
11 through a respective hole in each said half-bracket.  
12 Portions of said half-brackets lying between a post or  
13 a beam and the adjacent edge of a partition panel may  
14 be encompassed by a detachable clip, preferably formed  
15 as a unitary moulding of a resilient polymeric  
16 material. When a given partition panel is of a width  
17 and has a position such that one or both vertical edges  
18 of said panel do not lie alongside a post, the panel  
19 clamping means will not attach to that or these  
20 vertical edges, but the partition panel will in such  
21 circumstance have a vertical height substantially equal  
22 to the height of the beam above the floor on which said  
23 panel is standing whereby, at a minimum, the top edge  
24 of such panel is clamped to the respective overlying  
25 beam to be stabilised thereby. When a given partition  
26 panel has a position such that at least one vertical  
27 edge of said panel lies alongside a post, the panel  
28 clamping means will attach at least to that vertical  
29 edge, whether or not the panel is of a height to be  
30 clamped to an overlying beam (if present) whereby, at a  
31 minimum, at least one side edge of such panel is  
32 clamped to the respective post to be stabilised  
33 thereby. When panel edges are mutually adjacent  
34 without there being an intervening post, such panel  
35 edges may be mutually directly secured.

1    Whatever the height or width of the partition panel or  
2    panels stabilised by the support system of the space  
3    divider in accordance with the invention, the partition  
4    panels are always floor-standing in a substantially  
5    vertical plane such that substantially all of the  
6    weight of such panels is carried on the underlying  
7    floor, the partition panel stabilising means thereby  
8    being substantially relieved of the dead weight of the  
9    partition panel(s) and being required only to stabilise  
10   the position of the or each panel against static and  
11   dynamic side loads (eg as may be due to unbalanced  
12   loading of articles supported by or leaning against a  
13   panel, impacts, and air movements). The bottom edge of  
14   each partition panel may rest directly on the  
15   underlying floor, or one or more panel foot members may  
16   be interposed between the bottom edge of a panel and  
17   the underlying floor for vertically supporting the  
18   respective panel. The or each such panel foot member  
19   may be vertically adjustable to enable selective  
20   variation of the height of the bottom edge of the panel  
21   above the underlying floor. The upper part of a panel  
22   foot member may be adapted to clamp the periphery of  
23   the panel in a manner similar to the bracket of the  
24   stabilising means, and the underside of the panel foot  
25   member may be adapted to have a high resistance to  
26   lateral movement of the floor surface, for example by  
27   being of dentato-serrate or dentato-costate form. When  
28   the modular support system mounts a suitable number of  
29   suitably disposed partition panels, such panels will  
30   tend to rigidify the support systems against lateral  
31   distortion induced by static or dynamic side loads.

32  
33   Insofar as said modular support system of the space  
34   divider system in accordance with the invention may not  
35   precisely fill a given floor space and thereby not abut

1 permanent walls of the building which bound said floor  
2 space and/or may have insufficient stiffness imparted  
3 to the modular support system by the panels supported  
4 thereby, the support system may lack adequate  
5 cross-bracing and be liable to skew under lateral  
6 loading. To obviate this potential disadvantage, the  
7 support system is preferably provided with beam-level  
8 beam extensions at the tops of the posts which are  
9 peripheral to said notional grid, said beam extensions  
10 extending horizontally to abut adjacent permanent walls  
11 or other rigid structures bounding the floor area  
12 whereby laterally to brace said support structure at  
13 the level of the beams thereof. Said beam extensions  
14 are preferably formed by requisite lengths of the same  
15 extrusion or other material forming the beams. Said  
16 beam extensions may be coupled to the adjacent post  
17 tops and beam ends by the same couplings as are used  
18 mutually to couple post tops and adjacent beam ends  
19 within the modular support system. The outboard ends  
20 of said beam extensions are preferably individually  
21 provided with adjustable jacking ends which are  
22 individually adjustable to provide selectively variable  
23 horizontal forces along the beam extensions whereby to  
24 provide controllable lateral bracing of the support  
25 structure. Said adjustable jacking ends are preferably  
26 in the form of screw-adjustable face-pieces which may  
27 be plug-fitted in the outboard ends of the beam  
28 extensions in a manner similar to the attachment of  
29 said couplings.

30  
31 The lower ends of said posts may be fitted with feet  
32 members which may be screw-adjustable and plug-fitted  
33 in a manner similar to said adjustable jacking ends,  
34 for adjustment of the respective height at which the  
35 post-supported beam-end(s) is held above floor level

1 (thereby to enable compensation for variations in floor  
2 level and/or in post height), said feet members  
3 preferably being additionally or alternatively adapted  
4 to have a high resistance to lateral movement on the  
5 underlying floor surface, for example by having  
6 undersides of similar dentato-serrate or  
7 dentato-costate form to the undersides of the panel  
8 foot members preferred for vertically supporting the  
9 floor-standing partition panels (thereby to improve the  
10 lateral stability of the support structure at floor  
11 level).

12  
13 Said space divider system preferably comprises canopy  
14 support means for supporting one or more canopies at  
15 the top of or above the or each module or multi-module  
16 of the support system. The canopy or canopies provide  
17 visual isolation between the top of the space divider  
18 system and the permanent building roof above the floor  
19 area, thereby obviating the need for the false ceiling  
20 customarily installed for visual isolation of  
21 ceiling-level services, etc (eg air ducts and the  
22 like). The canopy or canopies preferably have at least  
23 their undersurfaces of an optically bright material to  
24 form a distributed diffuse down-reflector for upwardly  
25 directed indirect lighting (conveniently mounted on the  
26 beams of the support system). The material of the  
27 canopy or canopies is conveniently a white or other  
28 light-coloured fabric draped over canopy support means  
29 in the form of wire hoops or stays preferably clipped  
30 to the beams by having their ends located in the same  
31 re-entrant slot(s) or channel(s) as are preferably  
32 formed in the exterior of each beam (and post) for the  
33 attachment of the aforementioned partition panel  
34 clamping means in the form of brackets. (It is to be  
35 noted that the last-mentioned multi-functionality is

1 indicative of the general flexibility in installation  
2 and use of the space divider system of the invention).

3  
4 According to a third aspect of the present invention  
5 there is provided a kit of parts for assembling a space  
6 divider system in accordance with the second aspect of  
7 the invention, said kit of parts comprising a plurality  
8 of posts each of mutually substantially uniform length,  
9 a plurality of beams each of mutually substantially  
10 uniform length substantially equal to the rectilinear  
11 internodal dimension of the notional grid upon which  
12 the assembled space divider system is to be based, said  
13 posts and said beams each comprising service  
14 distributing means, said kit of parts further  
15 comprising coupling means for mutually securing post  
16 tops and adjacent beam ends in the assembled space  
17 divider system, and partition panel stabilising means.

18  
19 The lengths of said posts and the lengths of said beams  
20 in said kit of parts are preferably mutually  
21 substantially equal, whereby posts and beams are  
22 constituted by identical components in the kit of  
23 parts.

24  
25 Said kit of parts may further comprise a plurality of  
26 substantially planar partition panels.

27  
28 Said kit of parts may also include a plurality of any  
29 one or more of the following components:-

- 30  
31 a) panel foot members;  
32 b) beam extensions, and optionally also  
33 adjustable jacking ends therefor;  
34 c) feet members for the posts, which feet members  
35 may be adjustable;

- 1 d) canopy support means, and canopies for support  
2 thereby;  
3 e) service outlet units for mounting on the  
4 posts, preferably in a vertically adjustable  
5 manner, each service outlet unit preferably  
6 comprising one or more sockets for  
7 telecommunications and/or electrical power,  
8 and optionally also isolating switches and/or  
9 protective devices.

10

11 Embodiments of the invention will now be described by  
12 way of example, with reference to the accompanying  
13 drawings wherein:-

14

15 Fig. 1 is a schematic plan of a floor area divided  
16 by a space divider system in accordance with the  
17 invention;

18 Fig. 2 is a perspective sketch of a complete  
19 single module of the scheme of Fig. 1, together  
20 with parts of adjacent modules;

21 Fig. 3 is a perspective sketch of another complete  
22 single module of the scheme of Fig. 1, together  
23 with parts of adjacent modules;

24 Fig. 4 is a perspective sketch, from a different  
25 angle, of the module of Fig. 3 and its adjacent  
26 neighbourhood in the scheme;

27 Fig. 5 is a cross-section of an extrusion forming  
28 the posts and beams of the space divider system;

29 Fig. 6 is a cross-section, to an enlarged scale,  
30 of part of the extrusion of Fig. 5, fitted with a  
31 duct closure;

32 Fig. 7 is a cross-section of the duct closure of  
33 Fig. 6 showing the preferred millimetric

34 dimensions and material specifications thereof;

35 Fig. 8 is an enlarged fragmentary cross-sectional

1 view of the duct closure of Fig. 7;  
2 Fig. 9 is an exploded pictorial view of the  
3 coupling means for mutually coupling beam ends and  
4 a post top;  
5 Fig. 10 shows the parts of Fig. 9 assembled;  
6 Figs. 11a and 11b show a connection between a  
7 panel and post;  
8 Fig. 12 is a perspective view of a panel to panel  
9 connection;  
10 Fig. 13 is an elevation of a multi-purpose fitting  
11 for attachment of accessories to a beam;  
12 Figs. 14 and 15 show fixings for corridor and cell  
13 canopies respectively;  
14 Fig. 16 is an elevation of a panel with a pinboard  
15 attached;  
16 Fig. 17 is an exploded view of a track lighting  
17 attachment means; and  
18 Fig. 18 illustrates a further embodiment means for  
19 an accessory to the invention.

20

21 Referring first to Fig. 1, this schematically depicts  
22 the plan of an office floor 10 which is to be modularly  
23 divided by a space divider system in accordance with  
24 the invention. The floor area 10 is generally  
25 rectangular with a 3:2 aspect ratio (length:breadth  
26 ratio), and is interrupted only by a rectangular  
27 service core 12 containing plumbed facilities.

28

29 As depicted in Fig. 1, the floor area 10 is reticulated  
30 by a notional square grid having substantially uniform  
31 rectilinear internodal dimensions, ie nominally equal  
32 horizontal distances in length and breadth directions  
33 between intersections of the notional grid lines  
34 defining the grid squares 14 (not to be confused with  
35 the quite different distances between diagonally



1 opposite corners of the squares of the notional grid).  
2 The notional grid is sectioned into a number of  
3 sub-grids of several squares each (eg those  
4 respectively denoted 14A and 14B), and separated by  
5 strips 16 of about half the width of the characteristic  
6 dimension of the basic squares 14 of the notional grid.  
7 Some regions 18 of the floor area 10 which could be  
8 divided into basic squares are not so divided, to form  
9 multi-modules (detailed below).

10

11 At each corner of each basic square 14 of the notional  
12 grid, there stands a vertical post 20, as schematically  
13 depicted in Fig. 2. Between each pair of posts 20  
14 which are adjacent along the length and breadth of the  
15 notional grid (ie rectilineally adjacent, and  
16 disregarding pairs of posts which are adjacent along  
17 diagonals of the notional grid), a horizontal beam 22  
18 is supported at each end thereof on the tops of these  
19 adjacent pairs of posts 20.

20

21 The coupling means for coupling beam ends to post tops  
22 is illustrated in Figs. 9 and 10. The plug-type  
23 coupling means is preferably provided in a number of  
24 forms each appropriate to the number of beam ends (from  
25 one to four) to be attached to and supported by a  
26 single post top. In the embodiment shown a  
27 T-bracket 70 having a vertical and horizontal component  
28 extends from the top of a post 20. Midway along the  
29 horizontal component of the T-bracket 70 is a slot for  
30 fixing a double bracket 71 having a corresponding slot,  
31 the double bracket 71 and T-bracket 70 being fastened  
32 together by a button head screw 72. End caps 73 are  
33 provided at the end of each beam 22. The end caps 73  
34 have a cross-section which generally corresponds to the  
35 cross-section of the beams 22 and include a slot into

1 which the ends of the T-bracket 70 or double bracket 71  
2 may be plugged. A means is also provided for screwing  
3 the ends of the brackets into the beams 22 to ensure  
4 they are securely fastened. This means comprises a  
5 hilt or flange 74 positioned a small distance from the  
6 end of each leg of each bracket.

7  
8 The horizontal length of each beam 22 is substantially  
9 equal to the rectilineal internodal distance or basic  
10 dimension of the notional grid, ie the side lengths of  
11 a square 14.

12  
13 The uniform height of each post 20 is not less than the  
14 minimum height which will keep the beams 22 above the  
15 heads of people standing on the floor 10, and is  
16 preferably equal to the length of the beams 22, as well  
17 as being formed from the same material, to minimise the  
18 number of different components in the space divider  
19 system. (Details will be given below, with reference  
20 to Figs. 5-8, of a structural element design enabling  
21 the posts 20 and the beams 22 to be identical  
22 components, and yet properly serve their respective  
23 functions).

24  
25 The necessity of the posts 20 being tall enough to hold  
26 the beams 22 above head height and the lengths of the  
27 beams having to be about the basic side length of the  
28 basic squares 14, combined with the desirability of the  
29 posts 20 and the beams 22 being identical (including  
30 identity of length), leads to the side length of the  
31 basic square 14 being of the order of 2.5 metres. This  
32 allows the length of beams and posts to be about 2.4  
33 metres, the remaining 0.1 metre in height and span  
34 being provided by the beam/post couplings. The net  
35 result is a basic space divider module 24 of cubic

1 form, as shown in Fig. 2 along with parts of adjacent  
2 space divider modules. An adult-size table 26 and  
3 chairs 28 are schematically depicted within the cubic  
4 module 24 to demonstrate the scale. (The side length  
5 of the basic square 14 may alternatively be of the  
6 order of 3.0 metres, the beams and posts having a  
7 length of about 2.9 metres, and the beam/post couplings  
8 being as before).

9  
10 As well as physically defining the outside edges of the  
11 module 24, the posts 20 and beams 22 constitute a  
12 modular support system for stabilising one or more  
13 floor-standing planar partition panels. Fig. 2 shows  
14 one such partition panel, denoted at 30. The panel 30  
15 stands in a vertical position on the floor 10 at one  
16 edge of the basic square 14, ie directly over and  
17 aligned with one of the notional grid lines. The panel  
18 30 is therefore co-planar with the posts 20 and the  
19 beam 22 which will serve to stabilise that panel.

20  
21 In the particular instance depicted in Fig. 2, the  
22 panel 30 has a "full" height, ie the panel 30 is about  
23 as high as the full height of the posts 20, but at the  
24 same time, the panel 30 has a width much less than the  
25 horizontal separation of the two rectilineally adjacent  
26 posts 20 supporting the overlying beam 22 (about  
27 one-third of the distance in the schematic example of  
28 Fig. 2). Moreover, the panel 30 is located about  
29 mid-way between the two adjacent posts 20. Thus the  
30 panel 30 can not be directly secured to the posts 20,  
31 but is directly secured to the overlying beam 22 by  
32 partition panel clamps or brackets (not shown in  
33 Fig. 2).

34  
35 Partition panels can of course be located as desired

1 within the stabilising framework of the posts and beams  
2 constituting the modular support system, and such  
3 freedom of choice in panel location is one of the  
4 advantages of the space divider system of the present  
5 invention. For example, the panel 30 shown in Fig. 2  
6 could readily be relocated to one side of its  
7 illustrated position, eg to abut one of the posts 20.  
8 In such position, the panel 30 would normally also be  
9 clamped to that post, as well as to the beam above.  
10 Clearly, when post-clamped, a panel need not also be  
11 clamped to the overlying beam, and could then be of  
12 less than "full" height. Also, panels can have any  
13 desired width, up to a full beam length, the width of  
14 the illustrated panel 30 being merely exemplary and  
15 convenient for handling without special equipment.

16  
17 Whatever the actual size of a partition panel, at least  
18 one panel edge (the top edge or a side edge) will be  
19 clamped or otherwise secured to an adjacent post or  
20 beam as a minimum provision for panel stability. When  
21 two or more partition panels stand alongside without  
22 intervening posts, their mutually adjacent side edges  
23 are preferably mutually secured to increase overall  
24 support and stability.

25  
26 A preferred embodiment of a connection between a post  
27 20 and a panel 30 is shown in Figs. 11a and 11b. An  
28 aligning means 80 in the form of a flexible extrusion  
29 is positioned between the post 20 and the panel 30.  
30 The aligning means 80 also provides a light seal  
31 between the post and the panel. A further reinforcing  
32 means may be provided in the form of a panelled strap  
33 or bracket 81 as illustrated. The straps 81 may be  
34 adapted for the connection of a panel to an adjacent  
35 panel as shown in Fig. 12. Grooves extending along a

1 vertical edge of the panels are used to house one end  
2 of the aligning means 80 or, in the case where two  
3 adjacent panels require alignment, the grooves house a  
4 filler strip 82. The filler strip is preferably made  
5 from a plastics material and also serves for the  
6 purpose of a light seal between adjacent panels.

7  
8 The panel straps may also be used to fasten other  
9 accessories onto the panels. Other accessories for  
10 example may include pin boards as shown in Fig. 16,  
11 socket arrays for telecommunications and so on and  
12 these are discussed in more detail below.

13  
14 The material or materials from which any given  
15 partition panel is made will be selected according to  
16 functional, aesthetic, and economic considerations. By  
17 way of example, panel materials may comprise chipboard  
18 covered with veneer or laminate or fabric, or glass, or  
19 acrylic sheet, or perforated sheet metal (eg aluminium  
20 or steel).

21  
22 Partition panels may be functional in ways other than  
23 mere area division. For example, partition panels may  
24 contain service panels such as panel-mounted arrays of  
25 sockets for telecommunications and/or electrical power,  
26 or the partition panels may incorporate doors, eg  
27 sliding doors or hinge-mounted doors or concertina  
28 doors.

29  
30 As an alternative to the use of partition panels as  
31 area dividers, at selected locations within the space  
32 divider system roller blinds, curtains, or concertina  
33 doors may be directly suspended from and supported by  
34 the local beam(s).

35

1 While storage units (eg shelves and cabinets) may be  
2 carried on a partition panel, the limited load capacity  
3 of the modular support system makes it preferable that  
4 additional posts be provided at points intermediate the  
5 grid nodes for the purpose of bearing the load of  
6 suspended cabinets or other storage units.

7  
8 The top of the module 24 is covered by a light-weight  
9 canopy 32, conveniently formed of a white or  
10 light-coloured fabric draped over wire stays (not  
11 visible) end-mounted on the rails 22 of the module.  
12 The canopy 32 serves as a diffuse down-reflector for  
13 upwardly directed indirect lighting (not shown in  
14 Fig. 2), conveniently provided by lighting units (not  
15 shown) secured to the rails 22.

16  
17 The module 24 further supports external edge canopies  
18 34 also mounted on the rails 22. The lesser-width  
19 strip 16 adjacent the basic square 14 of the module 24  
20 is similarly capped by a canopy 36 supported on  
21 semi-circular wire hoops (indirectly visible).

22  
23 The canopies 32, 34 and 36 provide visual isolation of  
24 the floor area 10 from the overhead regions, thus  
25 obviating the necessity of a false ceiling as  
26 conventionally provided for the concealment of overhead  
27 services.

28  
29 Fig. 2 shows only one of innumerable variants which the  
30 space divider system of the invention is capable of  
31 providing. A modified version of the Fig. 2  
32 arrangement is schematically depicted, from a similar  
33 perspective, in Fig. 3 and again in Fig. 4, but from a  
34 lower perspective.

35

1 Reverting to Fig. 1, the basic cubic modules located on  
2 individual ones of the squares 14 can form single  
3 office room units within the floor area 10, and the  
4 lesser-width strips 16 correspondingly form traversable  
5 passageways or corridors between the room units, so  
6 ensuring pedestrian access to all parts of the floor  
7 area 10. This is particularly manifest in Fig. 4.

8  
9 The regions 18 which are not fully divided into basic  
10 squares can form large office room units, eg conference  
11 rooms and meeting rooms, the omission of posts within a  
12 given region 18 avoiding the unwanted interruption of  
13 such a larger room unit by a central pillar(s). (The  
14 multi-length beams that would be necessary to span the  
15 multi-modular regions 18 are preferably omitted, since  
16 such extra-long beams would tend to sag).

17  
18 Referring now to Figs. 5-8, these give details of a  
19 structural element design enabling the posts and beams  
20 of the space divider system, outlined above with  
21 reference to Figs. 1-4, to be formed as identical  
22 components.

23  
24 The structural element is an extrusion 50 having the  
25 cross-section detailed in Fig. 5. The extrusion 50 is  
26 preferably formed from a suitable polymeric plastics  
27 material, self-coloured and having an appropriate  
28 hardness, rigidity, and surface finish. (The extrusion  
29 50 may alternatively be formed from any other suitable  
30 material, eg an aluminium alloy).

31  
32 Dealing now with the extrusion cross-section in detail,  
33 it consists of a central spine 52 dimensioned to  
34 provide adequate bending rigidity for use as a beam and  
35 adequate columnar compression strength for use as a

1 post. The central spine 52 incorporates a rectangular  
2 cavity 54 serving to accommodate similarly dimensioned  
3 plug members of the post/beam couplings (not  
4 illustrated). At each narrow end of the rectangular  
5 cavity 54 an internally circular channel 56 is joined  
6 to the cavity 54 by a respective slot 58 to provide a  
7 certain resilience in the mutual separation of the  
8 broad faces of the rectangular cavity 54 thereby to  
9 facilitate interference plug-fitting of the post/beam  
10 couplings.

11  
12 In use as a beam, the extrusion 50 is preferably  
13 utilised with the alignment shown in Fig. 5 for reasons  
14 now to be detailed. From the lower end of the central  
15 spine 52 integral wall members 60 extend laterally  
16 outwards and then vertically upwards to terminate  
17 laterally well outwards of the upper end of the central  
18 spine 52. These wall members 60 define two cable ducts  
19 62 (internally bounded by the central spine 52) forming  
20 service trunking integral with the extrusion 50. When  
21 in use as a beam, the lateral separations of the tops  
22 of the wall members 60 from the top end of the central  
23 spine 52 form open tops of the two ducts 62 allowing  
24 cables and other service carriers to be readily  
25 installed in the beams of the support system as a  
26 secondary stage in construction of the space divider  
27 system. (Preferred closures for the ducts 62 will be  
28 detailed below with reference to Figs. 6-8, these  
29 closures positively retaining cables and other service  
30 carriers within the ducts).

31  
32 Apart from the open tops of the ducts 62, the wall  
33 members 60 give the extrusion 50 an overall curviform  
34 square profile, and the duct closures complete this  
35 profile (see Fig. 6). The resultant symmetry allows



1 posts formed from the extrusion 50 to be aligned in any  
2 of four directions without variation of overall  
3 transverse dimensions of the post, the duct closures  
4 (Figs. 6-8) positively retaining cables and other  
5 service carriers within the ducts 62 whatever the  
6 alignment of the extrusion 50 (whether as a post or as  
7 a beam). In use it is preferable that the duct  
8 closures be used on the posts 20 while the ducts 62 be  
9 left open in respect of the beams 22.

10

11 The top and bottom edges of the central spine 52, and  
12 the mid-height of the wall members 60, are each  
13 externally formed with re-entrant channels or slots 64.  
14 These channels 64 permit the clipping-on of items such  
15 as light fittings, canopy stays, and partition panel  
16 top edge clamps when the extrusion 50 forms beams, and  
17 conversely permit the attachment of items such as  
18 service outlet units (not shown) and partition panel  
19 side edge clamps when the extrusion 50 forms posts.

20

21 A preferred form of closure for the open tops of the  
22 cable ducts 62 will now be described with reference to  
23 Figs. 6-8.

24

25 Fig. 6 shows, to an enlarged scale, the upper end of  
26 the central spine 52A of an extrusion 50A generally  
27 similar to the extrusion 50 shown in Fig. 5 but  
28 differing in minor detail not significant to the duct  
29 closure now to be described. Only the closure of the  
30 right-hand one of the pair of ducts 62 is shown in  
31 Fig. 6.

32

33 The upper end of the central spine 52A is formed on  
34 each side (only one being shown in Fig. 6, but see also  
35 Fig. 5) with a re-entrant slot 66 into which clips the

1 relatively rigid inboard end 68 of a flexible lip  
2 member 70 constituting the duct closure. The end 68 is  
3 a resilient bifurcate internal clip and is separately  
4 detailed in Fig. 8. Preferred millimetric  
5 cross-sectional dimensions of the lip member 70 are  
6 detailed in Fig. 7, together with an indication (by  
7 cross-hatching) of the relatively soft and flexible  
8 flap part 72 of the lip member 70.

9  
10 The clip end 68 and the flap 72 are preferably formed  
11 integrally, eg by co-extrusion of two materials, or by  
12 localised treatment of an extrusion of a single  
13 material.

14  
15 The flexible lip member 70 is preferably extruded in  
16 indefinite lengths in the same manner as the main  
17 extrusion 50, and cut to the same standard length (eg  
18 2.4 metres or 2.9 metres as previously discussed).

19  
20 The flexibility of the flap 72 of the lip member 70  
21 allows deformation of the flap to permit one or more  
22 cables entry to or exit from the cable duct 62 at any  
23 selected point or points therealong, and also allows  
24 cables to be tucked into the cable ducts 62 even after  
25 closure by the lip members 70. This facility enables a  
26 re-distribution of services throughout the floor area  
27 10, without the use of tools.

28  
29 Fig. 6 demonstrates how the fully closed flap 72 of the  
30 flexible lip member 70 completes the symmetrical  
31 curviform square outline of the extrusion 50/50A to  
32 provide an aesthetically pleasing appearance to the  
33 posts and beams of the installed space divider system,  
34 and to function as a protective cover for, and positive  
35 retainer of, cables and other service carriers within

1 the integral trunking constituted by the cable ducts  
2 integrally formed within the extrusion.

3  
4 Figs. 14 and 15 show possible embodiments of an  
5 attachment means for canopies 32, 36 to a beam 22. A  
6 multi-purpose clamp fixing bracket 90 is adapted to be  
7 inserted into the channel 64 in the wall member 60. A  
8 clamp block 91, again which may be used for  
9 multi-purposes is screwed or otherwise attached onto  
10 the clamp fixing bracket 90. The clamp block 91 is  
11 suitable for attachment of a plurality of further  
12 brackets suitable for further attachment of a canopy  
13 rod, light fitting or other accessory.

14  
15 Another form of mounting which may be used for lighting  
16 facilities, the attachment of signs or any other type  
17 of accessory, may comprise a track fixing 92 held to  
18 the wall members 60 by self tapping screws as shown in  
19 Fig. 17. Fig. 18 illustrates a yet further attachment  
20 means for, say, a hanging sign 94 including a two part  
21 moulding 93 through which a wire 95 supporting the sign  
22 94 or other accessory may be threaded and held by a  
23 grub screw 96. The grub screw 96 would pass through a  
24 loop in the end of the wire 95. This latter type of  
25 fastening means is more suited to the channel 64 which  
26 is located at the base of the centre spline 52.

27  
28 Various other methods for the fastening or attachment  
29 of accessories may be employed without departing from  
30 the scope of the invention.

31  
32 While exemplary embodiments of the space divider system  
33 of the invention have been described above in respect  
34 of an essentially uniform rectangular or (preferably)  
35 square/cubic cellular divider system, the space divider

1 system of the invention may be partly or wholly  
2 irregular in respect of dimensions and/or angles of the  
3 modular support system, ie the notional grid may be  
4 composed of rectangles of mutually different dimensions  
5 in horizontal directions and/or the posts may have  
6 non-uniform heights, and/or the grid may be partly or  
7 wholly non-rectangular. To this end, the extrusion for  
8 forming the posts and beams may be supplied in  
9 indeterminate lengths to be cut to selected lengths by  
10 on-site fitters, with requisite shaping of the  
11 post/beam couplings to accommodate coupling angles  
12 which are not right angles.

13  
14 While certain modifications and variations have been  
15 described above, the invention is not restricted  
16 thereto, and other modifications and variations can be  
17 adopted without departing from the scope of the  
18 invention.

19  
20  
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1   Claims

2

3   1.   A space divider system for modularly dividing an  
4   area of floor by means of selectively placeable  
5   floor-standing partition panels stabilised by a modular  
6   support system, said floor area being reticulated by a  
7   notional grid thereon, said support system comprising a  
8   plurality of substantially vertical posts individually  
9   standing on lineally adjacent nodes of said notional  
10   grid, each said post having a height greater than the  
11   height of a person standing on said floor, said support  
12   system further comprising a plurality of beams, each  
13   said beam being supported at each end thereof on the  
14   respective upper ends of a lineally adjacent pair of  
15   said posts, each said beam having a length  
16   substantially equal to the respective internodal  
17   dimension of the notional grid which that beam  
18   overlies, whereby the combination of said posts  
19   standing on the corners of a given area unit of said  
20   notional grid together with said beams supported  
21   thereby constitute a basic module of said space divider  
22   system, said posts and said beams each comprising  
23   service distributing means for distributing services  
24   throughout said floor area at least as far as the nodes  
25   of said notional grid, said posts and said beams  
26   further comprising partition panel stabilising means  
27   for stabilising a plurality of substantially planar  
28   floor-standing partition panels standing in  
29   substantially vertical positions on predetermined parts  
30   of said notional grid.

31

32   2.   A space divider system for modularly dividing an  
33   area of solid floor by means of selectively placeable  
34   floor-standing partition panels stabilised by a modular  
35   support system, said floor area being reticulated by a

1 notional rectangular grid thereon, said notional grid  
2 having substantially uniform rectilineal internodal  
3 dimensions in respective ones of two mutually  
4 substantially normal horizontal directions, said  
5 support system comprising a plurality of substantially  
6 vertical posts individually standing on rectilineally  
7 adjacent nodes of said notional grid, each said post  
8 having a substantially uniform height greater than the  
9 height of a person standing on said floor, said support  
10 system further comprising a plurality of substantially  
11 horizontal beams, each said beam being supported at  
12 each end thereof on the respective upper ends of a  
13 rectilineally adjacent pair of said posts, each said  
14 beam having a length substantially equal to the  
15 respective internodal dimension of the notional grid  
16 which that beam overlies, whereby the combination of  
17 four said posts standing on the four corners of a given  
18 rectangle of said notional grid together with four said  
19 beams supported thereby constitute a basic module of  
20 said space divider system, said posts and said beams  
21 each comprising service distributing means for  
22 distributing services throughout said floor area at  
23 least as far as the nodes of said notional grid, said  
24 posts and said beams further comprising partition panel  
25 stabilising means for stabilising a plurality of  
26 substantially planar floor-standing partition panels  
27 standing in substantially vertical positions on  
28 predetermined parts of said notional grid.

29  
30 3. A space divider system as claimed in Claim 2,  
31 wherein said rectilineal internodal dimensions are  
32 substantially equal in each of said two mutually  
33 substantially normal horizontal directions whereby said  
34 notional grid is a substantially square grid.  
35

1 4. A space divider system as claimed in Claim 2 or  
2 Claim 3, wherein said uniform height of said posts is  
3 substantially equal to said rectilinear internodal  
4 dimension of said notional square grid whereby said  
5 basic module is essentially cubic.

6  
7 5. A space divider system as claimed in any one of  
8 the preceding Claims, wherein said notional grid has a  
9 said post standing on each node thereof whereby the  
10 totality of said floor area is divided into basic  
11 modules.

12  
13 6. A space divider system as claimed in any one of  
14 Claims 1 to 4, wherein one or more posts are omitted  
15 from one or more selected nodes of said notional grid  
16 such that said floor area is divided in such places  
17 into modular multiples (for example, 2 rectangles (or  
18 squares) by 1 rectangle (or square), 3 rectangles (or  
19 squares) by 1 rectangle (or square), 2 rectangles (or  
20 squares) by 2 rectangles (or squares), etc), wherein  
21 the beam or beams otherwise overlying such places are  
22 omitted to allow for the absence of the supporting post  
23 or posts at said one or more selected nodes.

24  
25 7. A space divider system as claimed in any one of  
26 the preceding Claims, wherein the totality of said  
27 floor is reticulated by a single said notional  
28 rectangular or square grid thereon whereby the total  
29 area of said floor may be divided into said basic  
30 modules.

31  
32 8. A space divider system as claimed in any one of  
33 Claims 1 to 6, wherein the totality of said floor is  
34 reticulated by a plurality of notional rectangular or  
35 square grids thereon with each said grid having

1 substantially identical rectilinear internodal  
2 dimensions in respective ones of said two mutually  
3 substantially normal horizontal directions, and with  
4 adjacent grids being separated by strips of a width  
5 less than the respective said internodal dimension (for  
6 example, of a width about half of the respective said  
7 internodal dimension) whereby said basic modules can  
8 form occupiable room areas in the divided floor while  
9 said lesser-width strip or strips can form a  
10 traversable passageway or passageways between said  
11 occupiable room areas in the divided floor.  
12

13 9. A space divider system as claimed in Claim 8,  
14 wherein said lesser-width strips are traversed by beams  
15 of appropriately lesser length than the beams defining  
16 said basic modules.  
17

18 10. A space divider system as claimed in any one of  
19 the preceding Claims, wherein said service distributing  
20 means comprised in said posts and in said beams is  
21 constituted by integral trunking.  
22

23 11. A space divider system as claimed in Claim 10,  
24 wherein said posts and said beams are each hollow with  
25 one or more end-to-end longitudinal cavities therein  
26 serving as said integral trunking.  
27

28 12. A space divider system as claimed in Claim 11,  
29 wherein the or each said cavity in a post or beam is  
30 externally accessible at any point therealong through  
31 one or more flexible lips normally closing the  
32 respective longitudinal cavity to serve as cover and  
33 retainer but deformable to allow the entry or exit at a  
34 selected point of one or more cables or other service  
35 carriers.



1 13. A space divider system as claimed in any one of  
2 the preceding Claims, wherein an outlet unit is  
3 provided for attachment to a selected post to provide a  
4 selectively placeable local termination for cables or  
5 other service carriers distributed over the modularly  
6 divided floor area by the service distributing means  
7 comprised in the posts and beams, and a local outlet  
8 for services carried thereby.

9  
10 14. A space divider system as claimed in Claim 13,  
11 wherein the outlet unit is vertically movable on the  
12 selected post without detachment of the cable or cables  
13 terminated thereby, said cable(s) having an appropriate  
14 flexibility and length to permit such vertical  
15 movement.

16  
17 15. A space divider system as claimed in Claims 13 or  
18 14, wherein the outlet unit comprises one or more  
19 sockets for telecommunications and/or electrical power.

20  
21 16. A space divider system as claimed in any one of  
22 the preceding Claims, wherein lighting units and  
23 control switches therefor are mounted on or suspended  
24 from said beams and/or on said posts.

25  
26 17. A space divider system as claimed in any one of  
27 the preceding Claims, wherein said posts and said beams  
28 have mutually identical cross-sections, and are  
29 conveniently formed as cross-sectionally uniform  
30 elongate extrusions of an appropriate polymeric  
31 material.

32  
33 18. A space divider system as claimed in Claim 17,  
34 wherein the cross-sections of the posts and beams  
35 incorporates a resilient central slot forming a socket

1 for a plug-type coupling means for mutually attaching  
2 post tops and adjacent beam ends.

3

4 19. A space divider system as claimed in Claim 18,  
5 wherein the plug-type coupling means is provided in a  
6 number of forms each appropriate to the number of beam  
7 ends (from one to four) to be attached to and supported  
8 by a given single post top.

9

10 20. A space divider system as claimed in Claim 19,  
11 wherein the plug-type coupling means (with respect to  
12 its attitude when installed) comprises a single  
13 vertically depending plug member at the upper end of  
14 which there are from one to four horizontally extending  
15 plug members mutually aligned at 90° or 180° as  
16 appropriate to the local number and arrangement of  
17 beams to be supported by the post into the upper end of  
18 which said vertically depending plug member is plugged  
19 for attachment to the respective post.

20

21 21. A space divider system as claimed in Claim 20,  
22 wherein said plug members may have a substantially  
23 rectangular cross-section dimensioned to fit an  
24 appropriately rectangular cross-section of said central  
25 slot incorporated in the cross-section of the posts and  
26 beams, and to be either an interference fit therein or  
27 a marginal clearance fit therein.

28

29 22. A space divider system as claimed in Claim 21,  
30 wherein said plug members are each provided with a hilt  
31 or flange to limit and define the insertion of the  
32 respective plug member into the respective post/beam  
33 socket, wherein each said hilt or flange is provided  
34 with one or more screw-passing holes through which an  
35 appropriate number of screw-threaded fasteners may

1 extend to be screw-threadedly secured in the respective  
2 post or beam, conveniently into a respective internally  
3 circular channel formed in the extrusion cross-section  
4 of the posts and beams, and wherein said extrusion  
5 cross-section has two said internally circular channels  
6 each linked by a respective slit to the central  
7 plug-member-receiving slot to provide or enhance the  
8 resilience thereof.

9  
10 23. A space divider system as claimed in any one of  
11 the preceding Claims, wherein said partition panel  
12 stabilising means comprises partition panel clamping  
13 means for peripherally clamping one or more  
14 floor-standing partition panels placed on a  
15 predetermined part of said notional grid to stand  
16 substantially co-planar with the combination of a given  
17 beam and the adjacent pair of posts respectively  
18 supporting either end of said beam.

19  
20 24. A space divider system as claimed in Claim 23,  
21 wherein said partition panel clamping means comprises a  
22 plurality of brackets each insertable into and also  
23 slidable along at least one re-entrant slot or channel  
24 formed in the exterior of each post and beam, each said  
25 bracket being constructed or adapted to be secured to a  
26 respective portion of the periphery of the partition  
27 panel, by means of a fastener passing through a hole in  
28 the panel periphery, wherein each said bracket  
29 comprises two substantially identical half-brackets  
30 each of stamped sheet metal with one edge thereof  
31 flanged or otherwise formed for insertion into and (in  
32 operative combination with the other half-bracket)  
33 anchoring in the re-entrant slot or channel in the  
34 exterior of each post and beam, another edge of each  
35 half-bracket being cranked or otherwise formed for

1 engaging a respective side of the panel periphery such  
2 that the operative combination of the two half-brackets  
3 lie on each side of the partition panel and may be  
4 secured thereto by a fastener passing through a  
5 respective hole in each said half-bracket.

6

7 25. A space divider system as claimed in Claim 24,  
8 wherein portions of said half-brackets lying between a  
9 post or a beam and the adjacent edge of a partition  
10 panel are encompassed by a detachable clip, formed as a  
11 unitary moulding of a resilient polymeric material.

12

13 26. A space divider system as claimed in any one of  
14 the preceding Claims, wherein one or more panel foot  
15 members is interposed between the bottom edge of a  
16 panel and the underlying floor for vertically  
17 supporting the respective panel, and wherein the or  
18 each panel foot member is vertically adjustable to  
19 enable selective variation of the height of the bottom  
20 edge of the panel above the underlying floor.

21

22 27. A space divider system as claimed in Claim 26,  
23 wherein the upper part of a panel foot member is  
24 adapted to clamp the periphery of the panel and the  
25 underside of the panel foot member is adapted to have a  
26 high resistance to lateral movement of the floor  
27 surface, for example by being of dentato-serrate or  
28 dentato-costate form.

29

30 28. A space divider system as claimed in any one of  
31 the preceding Claims, wherein the support system is  
32 provided with beam-level beam extensions at the tops of  
33 the posts which are peripheral to said notional grid,  
34 said beam extensions extending horizontally to abut  
35 adjacent permanent walls or other rigid structures

1 bounding the floor area whereby laterally to brace said  
2 support structure at the level of the beams thereof,  
3 wherein said beam extensions are coupled to the  
4 adjacent post tops and beam ends by the same couplings  
5 as are used mutually to couple post tops and adjacent  
6 beam ends within the modular support system.

7  
8 29. A space divider system as claimed in Claim 28,  
9 wherein the outboard ends of said beam extensions are  
10 individually provided with adjustable jacking ends  
11 which are individually adjustable to provide  
12 selectively variable horizontal forces along the beam  
13 extensions whereby to provide controllable lateral  
14 bracing of the support structure.

15  
16 30. A space divider system as claimed in Claim 29,  
17 wherein said adjustable jacking ends are in the form of  
18 screw-adjustable face-pieces which may be plug-fitted  
19 in the outboard ends of the beam extensions in a manner  
20 similar to the attachment of said couplings.

21  
22 31. A space divider system as claimed in any one of  
23 the preceding Claims, wherein the lower ends of said  
24 posts are fitted with feet members which may be  
25 screw-adjustable and plug-fitted for adjustment of the  
26 respective height at which the post-supported  
27 beam-end(s) is held above floor level (thereby to  
28 enable compensation for variations in floor level  
29 and/or in post height), said feet members being  
30 additionally or alternatively adapted to have a high  
31 resistance to lateral movement on the underlying floor  
32 surface, for example by having undersides of similar  
33 dentato-serrate or dentato-costate form to the  
34 undersides of the panel foot members preferred for  
35 vertically supporting the floor-standing partition

1 panels (thereby to improve the lateral stability of the  
2 support structure at floor level).

3

4 32. A space divider system as claimed in any one of  
5 the preceding Claims also comprising a canopy support  
6 means for supporting one or more canopies at the top of  
7 or above the or each module or multi-module of the  
8 support system.

9

10 33. A space divider system as claimed in Claim 32,  
11 wherein the canopy or canopies have at least their  
12 undersurfaces of an optically bright material to form a  
13 distributed diffuse down-reflector for upwardly  
14 directed indirect lighting.

15

16 34. A space divider system as claimed in Claim 32 or  
17 33, wherein the canopy support means in the form of  
18 wire hoops or stays clipped to the beams by having  
19 their ends located in the same re-entrant slot(s) or  
20 channel(s) as are formed in the exterior of each beam  
21 (and post) for the attachment of the aforementioned  
22 partition panel clamping means in the form of brackets.

23

24 35. A kit of parts for assembling a space divider  
25 system in accordance with the second aspect of the  
26 invention, said kit of parts comprising a plurality of  
27 posts each of mutually substantially uniform length, a  
28 plurality of beams each of mutually substantially  
29 uniform length substantially equal to the rectilineal  
30 internodal dimension of the notional grid upon which  
31 the assembled space divider system is to be based, said  
32 posts and said beams each comprising service  
33 distributing means, said kit of parts further  
34 comprising coupling means for mutually securing post  
35 tops and adjacent beam ends in the assembled space

1 divider system, and partition panel stabilising means.

2

3 36. A kit as claimed in Claim 35, wherein the lengths  
4 of said posts and the lengths of said beams are  
5 mutually substantially equal, whereby posts and beams  
6 are constituted by identical components.

7

8 37. A kit as claimed in Claims 34 or 35 further  
9 comprising a plurality of substantially planar  
10 partition panels.

11

12 38. A kit as claimed in any one of Claims 35 to 37  
13 also including a plurality of any one or more of the  
14 following components:-

15

- 16 a) panel foot members;
- 17 b) beam extensions, and optionally also  
18 adjustable jacking ends therefor;
- 19 c) feet members for the posts, which feet members  
20 may be adjustable;
- 21 d) canopy support means, and canopies for support  
22 thereby;
- 23 e) service outlet units for mounting on the  
24 posts, preferably in a vertically adjustable  
25 manner, each service outlet unit preferably  
26 comprising one or more sockets for  
27 telecommunications and/or electrical power,  
28 and optionally also isolating switches and/or  
29 protective devices.

30

31

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